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ABSTRACT

A research project on study habits was conducted at the University of Khartoum, Sudan. This report includes: (1) an overview of the university and the background to the study; (2) previous research on study habits undertaken at the University of Khartoum and elsewhere; (3) the project goals and procedures; (4) findings concerning language proficiency testing and contributions to academic success; (5) anecdotal data obtained from interviews, diaries, and observations; and (6) recommendations based on the findings. Language proficiency tests in Arabic and English reading and in Arabic and English dictation were integrative measures, testing global skills related to general language proficiency. The study sought to determine the effect on university performance of the following variables: the Sudan School Certificate, interviews, secondary school attended, proficiency tests, and university English final examinations. Eight months after the orignial testing, subjects were retested in reading and administered a questionnaire. The conclusions are that English language proficiency is a major problem for the preliminary-year students and that there are potential problems of a linguistic and an attitudinal nature with Arabic as a medium of instruction in the university. (SW)

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FROM SCHOOL TO UNIVERSITY:

The Study Habits Research Project

Final Report

University of Khartoum
Students Affairs Section
1977

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University Research Fellow

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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PREFACE

This Final Report of the Study Habits Research Project is intended for use primarily within the University of Khartoum. The recommendations resulting from the research are made entirely within the context of the University structure. Readers outside of the University of Khartoum, indeed outside the Sudan, will no doubt find much of interest in these chapters insofar as they treat conditions found elsewhere. However, in the main, this report is addressed to those conversant with and concerned in the situation of teaching and learning at the University of Khartoum.

ACKNOWLEDGEMENTS

Grateful acknowledgement is due to Professor Abdalla A. Abdalla, former Vice-Chancellor of the University and to Ustez Mahmoud Ibrahim, former Dean of Students, whose concern and initiative were responsible for generating this project.

Thanks are due also to Mr John Swales, Director of the English Language Servicing Unit, without whose initial and continuing advice and encouragement this project could never have been completed.

Thanks also to Dr Tigani el-Hassan, Dean of Students, whose energy, enthusiasm, and insight lent invaluable support to the project.

Also to Dr Mustafa M. Abdel-Majid, Head of the Linguistics Department, and Dr Sayyid Hamid Hurreiz, Senior Research Fellow, for serving on the Project Steering Committee, and for much help and advice.

Among numerous Deans, Heads of Department and members of staff in the University who have aided the research during the last two years, I must single out Professor Yusuf Fadl Hasan, Dean of Arts, and Dr Ali Abdalla Abbas, Head of the English Department, for continuing support and encouragement. Also the staff of the English Language Servicing Unit for frequent practical advice and criticism.

Finally, I should like to acknowledge and thank all the teaching assistants and students who have worked so hard on various parts of the project, especially Darius Kenyi Jonathan, Majzoub R. Omer, Hashim Ahmed al-Tahir, Mohamed Salah ad-Din, Fatima Mohamad Ali Zumrawi, Dina Omer Mohamed Osman, Anwar Wagi'alla.

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CHAPTER ONE

INTRODUCTION: AN OVERVIEW OF THE UNIVERSITY AND THE BACKGROUND TO THE STUDY

HISTORY OF THE STUDY HABITS RESEARCH PROJECT

During the 1971-72 academic year, at the University of Khartoum, Ustaz Mahmoud A. Ibrahim, then teaching in the Department of Education, became concerned at obvious deficiencies in the English reading abilities of his students. He was familiar with the idea of reading improvement laboratories, which he had visited at other universities, and began to consider the possibilities for the establishment of a similar centre at the University of Khartoum. He approached the then Dean of Students, Dr Abdallah A. Abdallah, who took the first practical step of writing in 1973 to the Ford Foundation Middle East Office in Beirut outlining the problem and inviting their interest in establishing a reading centre. The Ford Foundation did take an interest in reading improvement and assigned Dr J.W. Salacuse, then of the Beirut office, to begin discussions in Khartoum. In August, 1974, a meeting was held at the University of Khartoum, attended by Ustaz Mahmoud, Dr Salacuso, Mr John Swales, Director of the English Language Servicing Unit of the University, and Dr Björn Jernudd, Ford Foundation Project Specialist in Linguistics. After a full discussion of the situation at the University of Khartoum, it was agreed that the problem involved the whole issue of study habits, not just those of reading alone. Thus the conclusion was that the establishment of a reading improvement centre would be premature until an investigation was made into the ways students study at the University of Khartoum and the problems they encounter. As a result, a proposal was made by Ustaz Mahmoud, by then Dean of Students, and Mr Swales that a research specialist be employed from outside the University to conduct an investigation into the study problems of students. In their proposal Mahmoud and Swales noted that the University appeared 'to be going through a period of creative evolution' and expressed the hope that new thinking about degree structure would be matched by 'new thinking about how the students can develop more effective ways of study'. They also noted that there appeared to be 'a feeling amongst many members of the university that student performance in the first two years is particularly unsatisfactory', and suggested the possibility that such factors as 'the lecture-system, weakness in English and proven capacity for rote-learning all combine to produce a type of student that the university is fundamentally unhappy with, but is increasingly willing to settle for'. They called for a piece of 'action research ... carried out in an open atmosphere of cooperation and goodwill', and suggested that the researcher might work to a brief such as

> to describe actual student study behaviour as at present, assess its causes, and evaluate its strengths and weaknesses; to make a series of recommendations with an estimate of what each might involve in terms of curriculum development, dislocation, staff re-orientation, expenditure, etc.; to work with a number of interested staff members on pilot projects; to make available to the staff information about techniques of learning and teaching found to be successful (and unsuccessful) in comparable educational institutions.

(A copy of the Proposal document is included in the Appendix.) Final approval for the project was received from the Vice-Chancellor in February, 1975. The Ford Foundation, representatives of which had been involved in the discussions all along, was approached for a grant to cover the costs of the research, including hiring an outside specialist. The grant was approved and the post of University Research Fellow advertised. In December, 1975, the Research Fellow was appointed and the Project was initiated.

This Report contains two sorts of data - statistical data gained through testing and interviewing, rigourously analysed and what might be called 'anecdotal' data gained through day-to-day contact with the University as a teaching member of the staff in two faculties (Arts and Science). The reader of the Report who is familiar with the University of Khartoum may find some of the data in this introduction commonplace and redundant (one hopes he does not find it too much in error!) but he may also agree that it is not irrelevant, for any proposals for the improvement of academic life among the students must take into account a wide variety of factors. Academic life, as a component of a national culture, is related to other components in a complex pattern, the workings of which are little understood. We can but try to take as many of the other features of culture as possible into account as we attempt to manipulate one of them. Such manipulation must be, in our present state of knowledge, unaffected in large part by 'scientific method', but attempted by use of what we call 'common sense' or 'experience'. This is not to say that, in areas where we are capable of precise measurement and formulation, we should not take advantage of them, but only that we cannot hope to measure in this way all the relevant factors and their place in the network of culture.

OVERVIEW OF THE UNIVERSITY OF KHARTOUM

The University of Khartoum the main campus of which is located on the banks of the Blue Nile began as Gorden College in 1898, a primary and secondary school and training college. By 1930 Gorden College was wholly a secondary school and by 1940 was offering courses at tertiary level through Schools of Agriculture, Arts, Law, Science and Engineering, and Veterinary Science. In 1947 the College was restructured as the University College of Khartoum, in 'special relationship' with the University of London. When Sudan became independent in 1956, the new Parliament passed the University of Khartoum Bill. The University now comprises 10 Faculties, a Graduate College, an Institute of African and Asian Studies, and a School of Extra-mural Studies.

At present (1977) there are approximately 650 members of the teaching staff and 6500 students, about 15% of whom are females.

Staff

The vast majority of the staff at the University of Khartoum are academically exceptionally well-qualified: most did their undergraduate work at Khartoum and hold Doctorates from Universities in Britain, the United States, France and the USSR, among others. Expatriate members of staff, who represent about 20% of the total, come primarily from Britain and the United States (except in departments such as French or Russian) though many nationalities are represented from the Arab World, Africa, Asia, and Europe.

Students

The students come from all over the Sudan, though the majority are from the Arabic-speaking northern part of the country, about 10% coming from the non-Arabic Southern Region. There is a small number of foreign students mainly from the Middle East, and North and East Africa.

Administration

The University is administered through a University Council, a Senate, various Faculty Boards and Departmental Boards and various other committees. The offices of the University include the Chancellor (The President of the Republic), a Vice-Chancellor, Deputy Vice-Chancellor, various Deans of Faculties, and a Principal. There are also various administrative sections such as the Academic Section, Personnel Section, Student Affairs Section, Admissions, and Faculty Registrars.

Degree Structure

The University offers undergraduate degrees in all faculties and post-graduate degrees in most. Beginning with the 1977-78 academic year it was planned to implement a new structure, patterned on the American 'course-unit' system though the change-over from the primarily British system will take some time. Prior to 1977, and during the period covered by the present research the University operated on a British pattern. In general, though, the basic structure of studies is a four-year programme, with the first year called a Preliminary-year, intended to provide transition from school to university; the second year, Intermediate-year (in some Faculties, First Year); Third year (or, in some Faculties, Second Year); Fourth year (or Third Year). Particularly promising students are given the opportunity of doing a further year's work to obtain an honours degree. The reason for the difference in year designations (Intermediate-year, First-year, etc) is that students intending to study for a degree in a science-related subject (e.g., Medicine, Veterinary Science, Engineering, etc.) all enter the Faculty of Science for the preliminary year though 'earmarked' for their 'professional' faculty, then transfer to one of the 'professional' faculties in the following year, where they are designated First-year students.

The Course-Unit System

The course-unit system was proposed by the Committee on Academic Reform (COAR) in a report of October 1972. The committee sought 'the elimination of some definite defects in the existing system of instruction and examination'. Among the defects singled out were a lack of coordination at inter-faculty and inter-departmental levels, leading to duplication and inefficiency; the difficulty of introducing new courses and modern methods which leads to stagnation; students' limited initial choice of courses and consequent permanent committment to the choice without modification, leading to a lack of enthusiasm among students (COAR:12). Features of the course-unit system, which members of the committee believed did 'not suffer from these major defects', are a two semester system, with final examination at the end of each semester; no supplementary examination - a student who failed a course would have to resit the examination in a subsequent semester; department advisor of studies to help students in selecting their programmes of study; degrees might be single subject degrees within one department, 'joint' degrees within a faculty, and interdisciplinary degrees within two different faculties. A major consideration was the flexibility offered by the new system, both as regards the student - who would be freer to follow his own interests and aspirations, and to change his major if he desired - and as regards the degree structure - new courses to meet the changing needs of society in the Sudan could be more easily created.

The University Senate, in March, 1976, accepted, in principle, the proposals for a course-unit system and referred the COAR report to the various faculty boards of the University for recommendations for implementing the proposals. The response, naturally, has been varied - the difficulties of implementing the new system are greater in some faculties than in others. The deliberations of the various faculty subcommittees have produced some challenging proposals. For example, the Law course-unit committee advocated basing course options and specializations on broad categories of employment opportunities for Law graduates, rather than on existing disciplines in departments in the Faculty of Law; the author of the report on the new system for the Faculty of Agriculture (Ali E. Kambal 1976) called for a reappraisal of the goals of undergraduate education in agriculture (last done in 1965) in the light of anticipated agricultural development in the Sudan; the Faculty of Arts proposals include a radical break with the past in the introduction of a 'general educational preliminary year: by general education is meant the sum total of courses which constitute the basis for a university education as well as inculcate certain values relating ... to the needs of the society as a whole'. Students would be allowed to choose two courses in their first year from such options as 'Introduction to Economics', 'African Forum', and 'Philosophical Problems'; in the Faculty of Science, Scientific English has been made a compulsory, two-year course, 'justified by its importance as a medium of instruction especially when it is generally agreed that the standard of English in schools has deteriorated rapidly in recent years; the Faculty of Economic and Social Studies has taken a cautious approach to the course-unit system by 'not suggesting any radical change in the courses required: all we have done is to temper the specialization and make sure the social science student has a little more familiarity with other social sciences than is presently allowed'.

The introduction of the new course-unit system, though proceeding at different rates through the University, and fraught though it is with administrative and technical difficulties, will offer a rare chance for modernizing, and making more relevant the university programme. Indeed, this opportunity is being taken and it will be imperative to study the effect of the new system on some of the features of academic life with which this report is concerned. There are two points here which are worth mentioning, however: one involving the way in which the new system is being implemented, the other concerning a possible carry-over from the old system. First, there is a danger that the students will be entirely left out in the planning and carrying-out of the course-unit system. This is not just a question of 'ethics' or of 'social justice' but a source of valuable opinion and experience is being passed over. Further, the lack of communication with the students on matters of policy and planning can lead to confrontation - as indeed it did when the new regulations for 'semester examinations' were attempted to be carried out in early 1977, resulting in a massive student boycott. The lack of an official students' union hampers efforts in this area, certainly. However, some thought should be devoted to inviting student participation in the exciting new venture.

The second potential source of difficulty is one involving the examination system under the new proposals. Under the old system, the year-end final examinations were a six-week long nightmare of intensive study and three-hour papers. Several weeks before the examinations period, students began missing lectures, staying up all night, copying notes, and above all, memorizing whole passages of texts and notebooks. With the introduction of the new system of semester Final Examinations, one would expect each paper to be somewhat 'devalued' to the extent that it covered only 12-15 weeks' work. Further, it is understood in the course-unit proposals that these 'semester finals' should count only 50% - 80% of the total mark and that 'continuous assessment' consisting of weekly 'quizzes', assignments, papers, mid-semester examinations, etc., should contribute to the remaining portion of the final mark. The danger is, however (and in the proposals to be implemented in the Faculty of Arts, it is, in fact, the case), that the old emphasis on examinations will remain and instead of the single year-end nightmare, there will be an additional one at the end of the first semester. The solution is not just one of basing a mark 75% on the examination and 25% on course-work, for example, but reducing the time actually spent writing examinations. If the semester finals are all to be three-hour papers, there will be little reduction in the importance attached to them by students. The advantage of the new system is that, instead of getting only a single mark for perhaps several papers, the student will receive marks for each paper he writes and should he fail a paper, will have to resit only that paper. He and the university get from this system a much more complete and sensitive examination of his competence. Thus, a student carrying six courses in a semester should not be asked to write six three-hour papers. Papers of one and half hours would be more likely to achieve the desired result of 'devaluing' examinations in the mind of the student, freeing him to do better work in class during the semester and relieving the necessity for a semester-end scramble for books and notes, and hours of memorization and tension.

Language

The official medium of instruction in the University is English. There are exceptions to this, notably in the Arabic Department, Shari'a Law, Sudanese History, and Introductory Philosophy courses. Further, as is quite natural, in tutorials and in informal discussions between teachers and students, Arabic may be used. Discussion among students is nearly always in Arabic. The University administration depends upon both languages to operate: e.g., notices to staff and/or students may be in either language, depending upon the source and nature of the message. It is stated policy that the medium of instruction in the University will eventually be Arabic. In 1966, Professor Nazeer Dafalla, then Vice-Chancellor of the University, opening a conference on English in the Sudan, made a number of statements (Nazeer 1966) which bear somewhat on the subject of this present research, ten years later: 'On the one hand, it is only natural for the Sudanese as a nation to aspire [to] and plan for Arabic, the mother tongue, to take its rightful place as the language of study for all subjects and at all levels of education'. He cited the psychological and national desirability of this in welcoming 'Arabicisation in the Secondary Schools, and for [these reasons] we should make Arabicisation as an ultimate [goal] in the university'. Professor Nazeer went on to recognize some of the practical problems of Arabicization - the lack of material written in Arabic and of teachers qualified in Arabic; a weakness in English resulting from Arabicization in the schools would become a problem in the University unless the quality of English teaching improved; the place of the University in the international academic scene.

In 1965 Arabic became the official medium of instruction in all government secondary schools. From that time, students entering the University had less and less exposure to English as a medium - in 1969 the first students who had had no English medium instruction entered the University. English is taught as a subject in schools beginning in the seventh year for nine periods a week for three years and continuing in senior secondary schools for six forty-minute periods a week in the first, four periods a week in the second and third years. Thus, where previously a pupil had nearly 2000 periods of formal English instruction as well as using it as a medium, he now has just over 1100 periods, and no use of it outside the formal English class. There is on the books a proposal for revising the curriculum in Higher Secondary Schools to include an additional two periods of English a week, giving around 1250 periods in the six-year course. This proposal is now being implemented.

A major exception to this general picture is the Southern Region, which, as a result of the Addis Ababa Accord of 1972, has a somewhat different situation:

> Arabic shall be the official language of the Sudan and English the principal language for the Southern Region without prejudice to the use of any other language or languages which may serve a practical necessity or other efficient and expeditious discharge of executive and administrative functions of the region. (Article 6, Addis Ababa Accord)

This article of the Accord has meant that in rural schools in the Southern Region, a local vernacular is used as the medium for the first four years. while Arabic and English are studied as subjects. In the fifth year, Arabic becomes the medium of instruction and the study of English as a subject continues. In urban schools, Arabic is the medium of instruction from the first year, while English is studied as a subject. In all Junior Secondary Schools, Arabic is the medium with English as a subject, while in Senior Secondary and post-secondary schools, English is the medium with Arabic as a subject. These provisions are stated in a resolution of the High Executive Council, No. 273, 1975 (Gabjanda and Yusuf 1977). This situation means that students from the Southern Region entering the University will have had at least their last three years of secondary school in the medium of English as opposed to their colleagues from elsewhere in the Sudan, who, as stated above, will never have had English medium instruction.

A minor exception to the Arabic medium norm lies in a few schools, mainly in Khartoum, where the medium of instruction is English. These are generally fee-paying schools, staffed by expatriates, though they offer scholarships and draw their pupils from a wide spectrum of Sudanese society. Still, in numbers of pupils, they represent a very small slice of the educational programme.

PHILOSOPHICAL EXCURSUS

Before discussing the nature of the problems confronting the young people who enter the University of Khartoum as Preliminary-year students, I should like to present a view of a situation which exists in the Sudan (and elsewhere, of course) involving what might be called the 'official' system and the 'practical' system, or the system that everyone believes should operate, and the one that does operate. For example, one can sound out the opinion of members of staff on what a good university examination script should be like: concise, accurate, well-formed, to the point, etc. But when the marking of those scripts takes place other factors, notably time and the number of scripts to be marked, force the 'practical' system into operation. Another example, following on somewhat from this, involves the strange situation of students who are demonstrably weak in English, i.e., those who fail their Preliminary-year course in, say Scientific English, but who are able to pass their examinations, written in English, in subjects where the lectures, tutorials, and reading were all in English. Two systems are at work here. It must be emphasized that the 'practical' system should not be considered 'bad' or 'illegitimate'. Nor is it 'informal' or 'ad hoc' - there are rules to be followed, allowable methods and practices and those which are unacceptable in the 'practical' system just as there are in the 'official' one.

While this dual system in not unique to the Sudan, it may be that it is more obvious here, especially in the University and where there is such a meeting of the typically western classical analytic model of experience and the more Eastern 'romantic', impressionistic model. The classical or official system, which, at Khartoum, operates on the surface, involves logical structure, an appeal to reason, and colours the responses given to questions about expectations of, say, staff toward their students' work. The romantic, or 'practical' system operates just as legitimately as the official system, and may be seen to account, for example, for the frustration encountered by a new, western expatriate member of staff when dealing with the University bureaucracy: expecting the stated, official system to work much the way it does at home, he is unable to understand, or even perceive, the workings of the practical system.

It is important to keep this dichotomy of system in mind when discussing the problem of students' study habits, for it makes no sense to talk about, say, the difference between school and university life by describing the surface phenomena of each - how things should be - while ignoring the underlying systems both in the school and in the university. This view is useful not only for 'getting a true picture' but also because it helps explain sometimes puzzling findings. For example, in research elsewhere into study habits, it has been the case that what are considered to be 'good' habits, from a logical point of view - preparing a study time-table, studying regularly, sitting at a well lighted desk, no noise, etc. - have little or no relationship with academic success (Maddox 1963; Biggs 1970b). Until the efficacy and legitimacy of the methods of study actually employed by students which do lead to success - the 'un-official' system - are recognized, little progress will be made in the area of study skills, or in educational research in general.

BACKGROUND TO THE STUDY

What, then, is the situation at the University of Khartoum which gives rise to and is a background of the present research project? Certainly, the first seed was, as has been stated, the observation of English reading difficulties among the students. But there are other aspects of student performance which contribute to the interest in this project.

From School to University

First is an insistence on the difference in style between school and university academic style. In the schools, the usual academic style is one that demands rote-learning to a great extent. Sudan has followed what has become a pattern in national development in that the rapid growth of secondary education after Independence has meant a shortage of qualified teaching staff and of materials. These factors, in turn, have led to large classes, a reliance on didactic teaching methods, examination-oriented syllabuses. The response of the pupils has been a natural tendency to rote-learning as a strategy most likely to produce success in such an environment. There is little element of critical analysis, summarizing, consolidating, paring down to essentials - indeed this is not necessary, for in a situation where teaching is a race to get through the syllabus so that the pupils have been exposed to the material covered in the examination, the teachers provide only the essential material to begin with. This approach to material, known as 'spotting', is believed to carry over into the university programme. Any reduction in what is offered by the lecturer for students to record is not only a waste of time but foolish - one is sure to leave out something that will be on the examination. The general shortage of textbooks, linked with the growth in numbers of school pupils and large classes, means of course that pupils may have access to the text only once or twice in the term, and certainly only one short time during preparation for the examination. In such a situation the most efficacious response is to labouriously copy out the text material as available and/or commit it to memory.

But rote-learning is not only a response to rapid growth and modernization in the Sudan. There is a cultural side to it as well. Though rote-memorization of the Koran prevalent in the Khalwa schools is no longer so much a part of Arabic learning as it once was, and the Khalwas themselves are being replaced by the more modern educational system, still, memorization and verbatim recitation of the 'lesson' are part of the educational aura in the Sudan and slow to die out. This is further strengthened by the lack of materials alluded to above, for when pupils have no paper or pens but must write their lessons on wooden Al-Wāh or in the sand, memorization is the only available strategy for information retrieval. Another cultural factor is the great respect accorded the teacher in Sudanese society - he teaches Truth and is not to be questioned. Further, it is often an economic hardship for families to have several children in school when they could be doing their share helping in fields or shop. Failure is thus to be avoided at all cost and the best way to avoid it is to learn everything. Further, it is a well-known problem that textbooks largely written by foreign scholars are often culturally inappropriate to the Sudanese school children. In the face of such culturally incomprehensible texts, the pupil's natural response to an otherwise hopeless situation - he has to know the material for the examination - is to memorize it with as little reference to meaning as possible.

LANGUAGE PROBLEMS

When the student enters the university, it is suggested, he must make a big adjustment to a new style of academics. On the surface, this is true. The University operates on a system of lectures and tutorials or practicals. Lecturers claim that students must learn for themselves and not expect to be 'spoonfed' as in school. However, as has been alluded to above, 'what should be' may not always reflect 'what is'. What academic differences does the student in fact encounter when he first comes to university? It will be the point of view of this report that the main one is language, and that as a result of this students and lecturers alike rapidly fall back on well-tried methods from school life: dictated notes and rote-memorization, and 'spotting'. It must be emphasized that these strategies for overcoming the language barrier are most true of the Preliminary-year and become less and less true as students become more proficient in English, so that by fourth or fifth year, students are well-capable of learning and studying in English. This is borne out by external examiners' reports:

The Archaeology External Examiner referred to '...handicaps created by language difficulties, shortage of library facilities...' but nevertheless noted the 'adequate international standard' of knowledge of facts.

The Geography External Examiner said that most of the candidates were '...greatly handicapped by their inability to express themselves in English'. He recommended a remedial course to bring students up to a School Certificate Credit Pass level.

The History External Examiner found the standards of English 'inevitably lower' than would be the case among native English speaking students, but felt, on the whole, '...that students here succeeded well in expressing their meaning in English...' and referred not only to a 'small minority' whose difficulties with English actually obscured meaning but also to other cases where English was written '...not only fluently, but even with a certain verve and style'. He also referred to the 'very easily discoverable' phenomenon of students all memorizing their lecture notes and reproducing these in answers to examination questions. Though he was 'agreeably surprised' to find that students had done a considerable amount of reading for some papers, he recommended that students be urged '...to spend a little more time reading, and a little less on learning lecture notes'.

The English External Examiner said, 'The standard of accuracy and acceptability of written English in the literature paper continues to decline...'. He referred to 'blemishes' of language and style, which '.. tended to obscure the undoubted interest and intellectual quality...' of the Honours dissertations. He called for '...more language practice and more rigorous control of written work in the early stages of the course...'.

The language switch from Arabic to English medium leads to consideration of another phenomenon which affects the situation at the University promoting interest in this project: the reputedly falling standards of English teaching in the schools.

The Arabicization of the Secondary Schools has led many, while recognizing the educational and national desirability of the scheme within the schools, to fear a fall in the standards of English among the majority of students entering university. The Vice-Chancellor's 1966 reference to this has been mentioned above. In 1967, Professor M. Macmillan, then of the Department of English at the University, also referred to falling standards of English among university entrants in a paper on 'Aspects of Bilingualism in the University' (1967). He notes, for example, the declining percent of passes in English Language in the Sudan School Certificate over a seven-year period (1963-69) compared with Arabic and English Literature, which he attributes largely to the increase in the number of students attending secondary schools during this period and the consequent decrease in opportunities for effective use of English. More recently, commenting on declining standards generally in English, the English Advisor in the Sudan Ministry of Education, Mr Julian Corbluth, identified 15 factors responsible (Corbluth n.d.), including Arabicization (which he nevertheless sees as 'an inevitible development' which is not to be questioned), decline in student motivation to study English, expansion of student numbers, all factors which he considers unalterable. He also mentions factors which he thinks may be permanent features of the English situation in the Sudan, including, among others, the reduction in the number of years spent studying English, and the loss of expatriate staff. Finally he lists factors which it is essential to change: the reduction in the number of English periods per week, especially for science students; the reduction in the standards of English teaching owing especially to the reduction in the length of teacher training courses; decline in libraries and availability of books; inadequate or inappropriate texts; demoralization of teachers, linking to low salaries and status, and frequent transfer.

It is noteworthy that all the Examiners quoted above distinguished between the 'intellectual quality' of the students and their deficient standards of English, and would, with the History Examiner, try to ignore the quality of expression, except where it obscured meaning. Such a distinction recalls a question posed by Professor Macmillan (1970) about the possible difference in degree of tolerance for poor linguistic expression between, say, a Sudanese lecturer in biology and an English lecturer in English literature. It also raises the question of accuracy of understanding and expression complicated by reference to rote-learning. In the Faculty of Science, for example, a student's rote-response to a question asking him to name the parts of a flower might be a lengthy regurgitation of everything he has memorized about flowers. An interesting hypothesis has been put forward (cf. Graves) that the student, lacking an adequate grasp of English grammar will ignore the 'grammatical meaning' of the examination question', but search the sentence for key words which will trigger off bits of his memory bank of data. The combination of these key-words and the corresponding data are, for him, the 'meaning' of the question. Hence, an answer that, while not 'to the point', and containing many 'irrelevancies', does also contain the right 'facts' - e.g. the parts of the flower. It has been further observed that examination or essay markers, while deploring such a response to a question, yet burdened with several hundred scripts to mark, among other considerations, will, mirroring the student, search the answer for the key words which will tell him the student in fact knows the parts of the flower and award marks accordingly. Even where 'objective' materials are used in examinations (e.g. multiple-choice questions), very little is known about the strategies students use for responding to them.

It is almost certainly the case that English proficiency has suffered in the University as a result of Arabicization in the schools. However, little research has been done into the nature of the problem, little systematic investigation of student performance over a period of time (though, of course, there are exceptions, cf. Ian Pearson's work with the Scientific English Examination). One such study has been undertaken, however, as will be noted in Chapter Two. Thus, though it is likely that the University courses designed to deal with pre-1969 entrants are no longer linguistically relevant, the extent to which changes need to be made and of what sort is unclear. Certainly the adoption of the new course-unit system will provide opportunity for change, and it is one of the goals of this report to provide some data for assessing the amount of change necessary. One possible consequence of the unpreparedness of many students for the English medium of the University is that they learn to tolerate a high degree of non-comprehension in their lectures, tutorials and reading. This in turn means that they must develop means of gaining knowledge and passing exams that can overcome weaknesses in comprehension. It is necessary to discover something about the level of non-comprehension and about the alternative sources of knowledge and learning strategies. As has been stated earlier, there is no a priori need to attach a stigma to these alternative sources and strategies, but it may be that the present language policy in the University will have to be re-interpreted in light of them. For example, English continues to be used as the medium of instruction for stated reasons such as the lack of materials and texts in Arabic at the tertiary level, especially in the technological and scientific disciplines; the lack of staff able (and willing) to teach in Arabic (this refers not only to European expatriate staff, but also to Sudanese staff whose under- and post-graduate training and teaching experience has all been in the medium of English); a desire for continued contact with the academic world outside of the Middle East and North Africa; the fear of continuing falling standards of admission (where English may be seen as an effective selection criterion); graduates employed by international firms in the Sudan. If it is the case, however, that students are short-circuiting the instructional medium (i.e., managing to pass examinations despite low proficiency in English), where does this leave the above reasons? Are texts and references in English necessary if students rely on other means of gaining information; what sort of lecture notes or stimulation can students gain from English lectures they cannot comprehend; how many and which students in fact go abroad for further study; and how much of the 'necessary' contact with the world academic scene is the product of habit rather than conscious intention; to what extent is English proficiency, as measured by the school leaving examination, connected with academic standards; and in universities where standards are reported to have fallen after Arabicization (e.g. in Egypt), what proof is there of such decline, and what factors other than language might lie behind it; finally, to what extent do international employers in the Sudan require English, and to what extent should the University cater for them? These are hard questions, both to ask and to answer, but they are key questions in a discussion of what sort of product the University is turning out, and of what might be done to make that product better.

This discussion has so far dealt with language situation in the University and its effect upon the study habits of the students. Before passing on to a look at other features of university life affecting study and the reasons for the present research, it is necessary to look briefly at the facilities for coping with the language situation in the University.

Department of Arabic

This department, with a staff of some 15 members, three of whom are professors, is responsible for teaching Arabic both as 'content' (i.e. teaching *about* the language and its literature), and as a second language (i.e. teaching Arabic to non-Arabic speaking students). The first of these tasks is the principal one in the Arabic Department: from 1977-78 all Preliminary-year students will do Arabic for four hours a week (except in the case of non-Arabic speaking students, who will do one of two special Arabic courses for eight hours a week). The ordinary course for Preliminary-year students comprises in the first semester two hours a week of Classical Arabic grammar, one of modern poetry and one of modern prose, while in the second semester the course is divided into equal units of classical poetry, and prose. There are two

'Special Arabic' courses, one attended by students whose first language is not Arabic but who did some Arabic in school, and the other for students with no prior knowledge of Arabic (e.g., many students from the Southern Region of the Sudan, and foreign students). These 'special' courses are not at present what might be called 'Arabic as a Second Language' courses. They include in the eight hours two of grammar drills 'for application' based on grammars of Classical Arabic and six hours of short story and other prose reading including newspapers and magazines in the first semester, and two hours of grammar, three of modern poetry and three of composition and reading in the second. The final examination includes an oral component worth one-fifth of the total. During the 1976-77 academic year a new 'Special Arabic' course was prepared and has been submitted for approval.

The Faculty of Law conducts its own Legal Arabic programme, a four times a week course based upon Shari'a texts.

Department of English

This Department, like most traditional university English Departments, is concerned both with English Language and Literature. In the Preliminary-year, the English Language courses are exclusively of a service nature, involving English as an academic skill rather than as a content subject. There are some ten members of staff in the English Department, four of whom deal with the service English course. In the first semester, Preliminary-year students take Communication in English for four hours a week, a course which includes grammar and reading comprehension exercises, aural comprehension, and sentence-level composition. The second semester deals with paragraph level composition, listening and reading comprehension, and oral production. There is a placement test which has been developed to group the Preliminary-year students by proficiency level, but so far this has not proved practical (mainly for timetable reasons).

English Language Servicing Unit

This unit is responsible for English teaching in several faculties, among various levels of students. The staff of about 15 offer courses in English for Preliminary-year students of Biology and Mathematics in the Faculty of Science, to students in the Faculty of Economic and Social Studies, to students of Law, to those in Biology and Mathematics in the Faculty of Education, and to Preliminary-year Architecture students; to second-year students of History, Biology, Mathematics, Architecture, third-year geologists and fourth-year political scientists. This sizeable operation, reaching over 1800 students, involves the preparation of original teaching and learning materials by the largely expatriate staff. The approach is a 'narrow focus' English for Special Purposes one and includes attempts to link the content and structure of the ESP courses to the students' subject courses. The amount of time allotted to special English in the University is very limited, especially in the Preliminary-year (the usual course is three hours a week), and although the staff of the Unit understandably feel that their response to the operation of bridging the gap between school and university is inadequate, the feeling throughout the University is that the English Language Servicing Unit is a very effèctive institution. (A discussion of the Faculty of Education may be found in the Appendix.)

A word is necessary, while considering language in the University, about the position of English and Arabic among the administrative and clerical staff - those responsible for the smooth running of day-to-day affairs. If English ability is said to be declining among University entrants, it is also declining among those school leavers who enter the work force in secretarial-clerical positions. Because of the difficulties of communication in English, quite naturally the ancillary side of the University is more prone to running in Arabic, with the result that, for example, notices eminating from departmental or faculty offices, from hostel staff, from the financial section are likely to appear in Arabic - which is certainly preferable to non-standard English. This is, however, somewhat of a communication block to those students, and teachers, who cannot read Arabic. More serious, perhaps, is the difficulty encountered, especially by the teaching staff, when attempting to get typing done for use in classes, or in getting committee reports or board minutes duplicated and distributed. This situation, admittedly, is exacerbated by an economic problem - experienced secretarial and clerical staff prefer to leave the University for better-paying jobs elsewhere. However, the problem is also closely linked with language policy, and as time goes on, the difficulties of operating the University on two linguistic levels will increase as the gap between the academic-official level and the ancillary-practical level widens.

SOCIAL AND CULTURAL LIFE

But, language-related difficulties are not the only problems confronting the students when they first come to the University of Khartoum - perhaps not even the most important. The broad area of social and cultural life presents a complex set of issues which this report can only touch on, but which are real and immediate concerns of the new students. Since Khartoum contains the main university in the Sudan (there are also the Cairo

University, Khartoum Branch; Islamic University of Omdurman; and the incipient Juba and Gezira Universities), students come from all over this huge country, many travelling for days, even weeks, to arrive at the capital. Though, on the one hand, the majority of these students belong to a culture which is broadly Arabic, there are, on the other hand, many regional differences which students find disconcerting when encountered for the first time. For example, returning briefly to language, regional varieties of colloquial Arabic (which itself may be a second language among many of these students) vary greatly and this can make a student feel very much alone in his new surroundings. Further, students from the non-Arabic Southern Region and students from the rest of the Sudan meet, often for the first time. While it cannot be emphasized too strongly that, politically, these students see themselves as Sudanese brothers and sisters, culturally, there are differences which must be adjusted to. These cultural differences involve a wide variety of matters - religious (the students from the Southern Region are predominantly Christians), dietary (in the sense of both religious customs and regional cuisine), recreational, dress (though there is not much difference among the men during the day, in the evening, the 'Arabic' group often wear the *Jallabiya*; among the majority of the 'Arabic' women the graceful *tobe* is often worn, while among the women of the Southern Sudan head scarves and bright print dresses are the rule).

This reference to male and female attire brings up another socio-cultural change encountered with the move from school to university and that is coeducation. Almost all of the Preliminary-year students come from single-sex schools and, when they arrive at the University, for the first time outside the family, come into close contact with their peers of the opposite sex. This can take some getting used to, especially among the more conservative of the students. In Preliminary-year classes students are to be found grouped, voluntarily, by sex, with the women occupying, usually, the front row. Likewise, in the library, the women study together, somewhat apart from the men. It is said that many of the women come to the University to find husbands, while the men are the serious scholars. It is further observed that, while the new students have relatively few social contacts among the opposite sex, this tendency fades with time, and that the older students are to be seen conversing and working together much more. In any case, it is certain that there are social attitudes at work on a sexual dimension and that this dimension should be considered in a discussion of the study problems of Preliminary-year students, and especially when solutions are put forward - quite simply, what works for the men might not work for the women, and vice versa.

Still another change encountered by the new students is the move from home to the University. It has already been pointed out that the journey from students' homes to Khartoum can be a long one, in both distance and time. The student may easily feel very much cut off from the influences of home and family (though often there will be cousins and other relatives at work in the capital). For the first time the student is on his own in new surroundings, with money to spend and time on his hands. Too much should not be made of this classical 'road to ruin', but for many students, again, there is an inevitable period of adjustment to add to their own worries. Just living in a crowded hostel, getting used to traffic lights and traffic noises, jet aeroplanes overhead, large numbers of untobed women, expatriate teachers, access to alcholic drinks - all these add to the strangeness of arrival and settling in at university.

Student life at the University of Khartoum is a complex mixture of many influences - social, political, religious, historical. These influences are overlapping and unevenly distributed among the students. Some students are more influenced by some factors than others. One could make a case for a 'student culture' at Khartoum, especially in relation to the rest of the population, though this is a very difficult concept to define. It is known, for example, that students have their own ways of speaking, different from those of their families back home; they have a history of involvement in political affairs, influencing but separated from the 'national' political arena; they have also a historical concern with internal university affairs, academic life and student welfare. The students of the University of Khartoum have a national, indeed international, reputation for their political awareness and action. The Khartoum University Students Union, for example, is credited with spearheading, as a major pressure group, the national strike which brought about the collapse of the Military government of 1958-64, the 'October Revolution' (Salah 1971). The importance of the Students Union as a pressure group in national politics was due to the relatively small politically active segment of Sudanese society and to the respect it accorded to the educated 'elite' of the nation. Though the latter case is still true, the 'politicization' of the Sudan is now a much more wide-spread phenomenon. It is unlikely that a student pressure group would have the same powerful effect today as it had nearly a decade ago. This still leaves the student movement as an interest group within the University, and the strength of this movement should not be underestimated. In late 1975 a student strike closed the University for four months. This was merely the latest in a series of disruptions. In any case, the Students Union at the University was disbanded by the authorities and has not, at the time of writing (October 1977), been revived. The unofficial students' movement, of course, continues, and is capable of mounting concerted protest action, such as a nearly 90% boycott of mid-year examinations during the 1976-77 year. This action illustrates two salient features of student life at Khartoum - the continuing traditions of protest among the students and lack of communication between the University administration and the students. The lack of an official Union has little effect upon the former and intensifies the latter. However, the situation facing the entering student may be particularly difficult. One serious consequence of the closing of the Union perhaps has been the dimunition of 'unofficial' information about university life - how to 'get along' in the University, what facilities are available, where to eat, where to get books, how to find the health centre, etc. Some of this sort of information is being disseminated in an official 'Students' Handbook' prepared by the Students' Affairs Section, under the Dean of Students. It contains, for example, an outline of the services of the Students' Affairs Section, and the official rules for students. When they first arrive at the University the new students are given the booklet (written in Arabic), are addressed by the Vice-Chancellor, the Dean of Students and the Deans of the Faculties and given a tour of the University. They are shown their rooms by the hostel Wardens as well as the medical, sports and recreation facilities. The problems of the 1977-78 Preliminary-year are added to by the introduction of the course-unit system among Preliminary-year students (in the form of semester examinations, initially). For the first time, the incoming students will not be able to get advice from their upper class colleagues concerning the arcana of Khartoum academia. They will have to rely almost entirely on the official system of communication. How this will function in this regard remains to be seen and would be an interesting topic of sociolinguistic research, for it involves the use of both English and Arabic, in a specialized area, to students who have little or no contextual background to aid them in sorting out the new information and relate it to existing mental structures. In other words, one might hypothesize that in such a situation, not only will the information have to be presented, but it will have to be in large part interpreted.

At this point it is necessary to examine briefly the 'induction' procedure for the Preliminary-year at the University. This, of course, varies from faculty to faculty, but there are general similarities.

When the University Admissions Office receives the Sudan School Certificate results, it makes its selection from among the applicants (this procedure is described in some detail in Chapter Five), and those selected are notified, usually by national radio broadcasts. Students who live in remote parts of the Sudan may face a two-week journey to reach the University. Altogether, this procedure - which includes the marking and tabulation of the results of the Sudan School Certificate, the University selection process, notification and travel time of the students - frequently results in the rather late arrival on campus of the Preliminary-year class, sometime after the older students have settled in. This in itself creates confusion for the new students, who must fit themselves into an already functioning system, altogether new to them.

In addition, the Preliminary-year class list and timetable are usually not prepared until the students are physically present. This means further delays while students are sorted out, allocated to tutorial groups and pointed in the right direction. Then staff must be notified, classrooms allocated, texts distributed (insofar as texts are distributed). The end result of all this is that the Preliminary-year begins in chaos, perhaps two or three weeks (at least) after the rest of the University.

Such a situation is not the best introduction to University life and certainly does much to set the standard for these students for the rest of their University career. This is part of the general problem of staff-student relations. There are 'Preliminary-year advisors' in each faculty, but they are few in number, have unspecified duties, and seldom see the students except when a problem arises, i.e. when a student has broken a rule.

UNIVERSITY STUDY

Yet another facet of student life that should be mentioned in this background survey is that of facilities for study. This includes consideration of both time and space. The usual work week at the University of Khartoum begins on Saturday and runs through Thursday. Technically, Christians are given Sunday off, but in practice, this is difficult to manage, for classes carry on. The day begins at a very early hour for the more religious students (and this may include a sizeable majority) who must rise at dawn for the first prayers of the day. The first morning lectures begin at seven o'clock, the last end at two. It is customary for Sudanese to have breakfast between nine and ten, but at the University, among staff and students, breakfast must be taken when the individual timetable permits. This in itself may require some adjustment on the part of the new student. Between two and five o'clock is normally a rest period and many students have a nap or a quiet read or chat during the hottest part of the day. There are lectures, practicals, and tutorials in the evenings, especially in Science, running perhaps until ten. It is the Sudanese custom to stay up rather late and the students typically study later than would their American or British counterparts. The timetable is traditionally rather full - a typical student schedule may run up to 25 or more hours a week in class (though this will be reduced somewhat by the new course-unit system) - which means that long blocks of study time are to be found only in the early morning or late evening, and, during times of crisis (i.e. examinations) students will sacrifice their afternoon rest for study. Friday is the 'day-off', though there may well be extra practicals or tutorials scheduled, and of course, it is an opportunity for uninterrupted hours of study (though, as with students elsewhere, there tends to be some difference between 'the thought and the reality', especially when friends and relatives come to visit).

This busy six-day-a-week, fifteen-hour-a-day schedule puts great physical and mental strain on students, and especially the new students. Though it is true that they come from a school system that places a premium on hard work and long hours, when these students begin work at university they are not quite sure what is expected of them. They are told on the official level that university life is different from school life, that self-reliant study and a lot of reading is required, and they are given long bibliographies early in their courses. They may not in fact be given specific assignments, as they were in school ('memorize that'), yet are faced with hours of lectures, tutorials, laboratory work and reading. Tension can be observed to mount steadily toward examinations (now to be held twice a year) until the six-day week becomes a seven-day week and the fifteen-hour day comes as close to a twenty-hour day as can be maintained.

Regarding this work schedule, one beneficial feature of Khartoum life is the not infrequent holidays, of both a religious and a civil nature. One religious feature that can affect the study efficiency of a majority of students is the month-long fast of Ramadan, which is observed widely in the Sudan. This period of abstinence, between sunrise and sunset, from all food and drink naturally makes even the hardiest and most fervent of students somewhat lethargic. Depending on when in the year it falls (owing to the lunar calendar, it falls at different times), Ramadan can add to the strain of study (in 1976, for example, Ramadan was observed during final examinations).

University Library Facilities

The Main Library of the University of Khartoum is a magnificient structure with a three-sided facade of Islamic arches originally built to house Gordon College: a most inspiring exterior, not a very practical interior. The University Library system is made up of the Main Library, five branch libraries (Education, Engineering, Law, Medicine, and Agriculture), two faculty libraries (Arts and Economic and Social Studies) and numerous departmental libraries (three in Arts; ten in Medicine, Pharmacy and Dentistry;

one in Law; four in Science; three in Engineering and Architecture; one in Economic and Social Studies; five in Agriculture and Veternary Science; and the library of the African and Asian Studies Institute). The faculty and departmental libraries, independent of the Main Library and its branches, have proliferated owing to the university policy of lending textbooks to students. Thus these libraries are devoted in a large proportion to textbooks and other 'required' texts for their own students. Though some are better administered than others, the usual case in the faculty or departmental libraries is disorganization and missing books, owing largely to lack of trained staff and supervision.

The main library and its branches, on the whole well-staffed and adequately looked after, contain some 300,000 volumes and periodical titles. About 70% of its expenditure of £S 113,800 (1975-76) is on periodicals. The accessions of the library are very unevenly balanced, with some disciplines more than adequately covered and up to date, others in exactly the opposite state of affairs. The Main Library has study space in the reading rooms for about 900 students. It is well-known around the University that students use the Library mainly for its tables and chairs rather than for its other resources. Since the main Library serves around 4000 students, it can thus accommodate less than a quarter of them at one time. In fact, the average daily attendance for eight months during 1975-76 was 213, shooting up to 450 just before examinations and dropping as low as 100 a day mid-year (based on figures from the 1975-76 Annual Library Committee Report). These 'averages' may be misleading, of course - often, just before examinations, there is not a seat to be had in the Library. The branch, faculty and departmental libraries provide space for many more students. The most popular time for library use is, predictably, in the evening - an average of 287 students used the Main Library between 5 and 10 p.m., while 156 used it between 8 a.m. and 1 p.m. during 1975-76.

The situation regarding library use at the University of Khartoum is really one of study habits than of library facilities. The facilities exist, and though the Library is not over-zealous in encouraging student users (it does produce a phamplet explaining the cataloging system for new students), the real stumbling-block is the attitude of the students (and ultimately that of the teaching staff) toward reading and research. This has already been mentioned in connection with strategies to cope with inadequate English proficiency. Not only do the students read slowly and with frequent recourse to the dictionary, but such reading is in fact encouraged in the majority of the language courses in the University: the emphasis is on intensive reading of short passages (though there are exceptions to this - notably in some ELSU courses), when students are often faced with scores of pages to read for their 'content subjects'. To quote from a short paper produced by the

English Language Servicing Unit on 'The English Standard of Students Entering the University of Khartoum' (undated):

> The reading skills which the students most need to develop are those which enable them to read quickly and with a general understanding of the main points; they can usually work out the details by careful but slow effort, so they do not need more practice in this kind of reading.

To return to the provision of textbooks, this is a notorious problem around the University. The situation, not surprisingly, is complex. On the one hand, there is a conviction among the students that a book is the answer to all their academic problems. There is a 'psychological dependence' upon the textbook just before examinations, and a book intended to have been used all year will suddenly be dusted off a few days before the examination and purused for insights to success. (In this regard, 'skill' subjects, such as English Language are treated no differently by students than their 'content' subjects such as History. Professor Macmillan mentions his dismay when students asked for a book to revise 24 hours before an English Language examination, and more recently this same phenomenon was observed by the author, in the Scientific English section of ELSU, when students were borrowing copies of the reading comprehension text a few days before the Supplementary Examinations.) But on the other hand, lecturers characteristically take one of two approaches to the reading question: they may assign very little reading and depend wholly upon lectures (which may include dictated notes) and one or two texts to convey the subject to the student, or they may provide on the first day of the course a daunting 'bibliography' of reading intended to supplement the lectures, with little guidance on exactly how the reading might relate to the subject matter of the lectures. Neither approach can be said to encourage a habit of reading, and as has been noted, the language courses seldom respond to the situation.

Though it was stated above that library facilities exist, in the matter of textbooks and 'assigned texts' there are problems which vary from faculty to faculty. The official policy at the University of Khartoum is to issue the students textbooks which, in other circumstances (e.g. affluence), they might be expected to purchase for themselves, and to provide sufficient copies of commonly assigned texts either in the main, branch, faculty, or departmental libraries. In practice, there are often not enough books, and this situation is made worse year-by-year as more and more books disappear from the shelves. (Students are required to pay a five-pound deposit against lost books, and when the price of a book exceeds the five pounds - and nowadays this includes most books - the students are not allowed to borrow the book.) Nor can textbooks easily be replaced, for foreign exchange problems can delay the receipt of an order by the university bookshop for a year or more.

The issuing of textbooks is generally the responsibility of the faculty and departmental libraries. As was mentioned, this function is fulfilled better in some departments than others (e.g. in the Faculty of Law, by the first lecture, new students have in their possession five books, including a dictionary). A sub-committee on Departmental Libraries of the University Library Committee reported (1977) that though there were advantages to the department library system (viz., that they are usually well-controlled and supervised, form an integral part of the department, and can fit the requirements of staff and students), they can be, nevertheless, expensive, inefficient and redundant, and tend to disjoin disciplines, creating quite artificial boundaries not conducive to research and study. The Sub-committee recommended the creation and strengthening of faculty textbook libraries to make the issuing of textbooks and 'required' texts more efficient. Somewhat illogically, they also recommend that students be encouraged to purchase books and that the bookshop open a second-hand book section, and 'provide sufficient copies' of textbooks for sale to students (p. 10).

CONCLUSION

This, it seems to me, is symptomatic of a pervading tendency in the University to place too much of the burden of responsibility on the students. If students do not do enough reading, the easy answer is to encourage them to purchase books; if their English is not 'good enough' to understand lectures, they must be sent to 'remedial' classes; if their examination preparation produces mechanical, unthinking responses, they must be given study-skills courses. Certainly, all of these resorts can be productive, but there is a danger, I believe, that the view of university education as a monolithic conglomerate of English-medium lectures, reading lists and examinations to which the student must adjust or fail, can lead to a greater and greater reliance on 'remedial' courses to increase the students' abilities to cope with a situation that is ever farther removed from reality. To combat this tendency, it will be necessary for the teaching staff to make adjustments in their approaches to student problems such as those mentioned above. It may be that shorter, more frequent lectures, combined with stencilled handouts would provide a solution to some problems. Perhaps more careful attention to reading assignments and more thorough discussion of reading both in lecture and tutorial sessions would be of benefit. A more frequent, though of course judicious, use of Arabic might also be an aid to student comprehension and conceptualization. Part of the aims of the rest of this report will be to point to areas where adjustment in the teaching style at the University might beneficially be made. The next chapter - an overview of other research and programmes - has certainly been written with this in mind. It should be pointed out that it was with this very idea in mind of adjustment to new realities that the Committee on Academic Reform made its recommendations for the institution of the new course-unit system, which is based on a concept of change in structure as a means of improving academic quality. The point of this concluding section of the Introduction to the Report is that the mood of change - as Mahmoud and Swales called it 'creative evolution' - as a strategy for improving the quality of the university graduate is one which should be pursued right through the university, not only in the reform of the degree structure. The continuing search for new structures and approaches must be based on facts of student behaviour and capabilities. Continual adjustments must be made in these structures (and by structures, I mean lecture styles, reading lists, course content, examination techniques, laboratory work, field trips - the whole range of features of university life) in light of student responses to them, for it is only in this way, it seems to me, that teachers can be true both to their disciplines (by presenting a true reflection of the discipline - not one distorted by irrelevant structures) and to their students.

This rather lengthy and kaleidoscopic Introduction has been presented to give the reader an idea of the complexity of the study situation at the University of Khartoum. The present research is little more than a scratch on the surface of the problem. In the following chapter a review of previous research in the area of study habits will be undertaken, covering both research at the University of Khartoum and that conducted elsewhere. This research covers a variety of disciplines, such as Education, Linguistics, Psychology and Statistics. It is hoped that the reader will find in this review both useful information and incentives and ideas for further work in this important field. Chapter Three will be an overview of the present project, outlining the procedures of research, a financial summary, and the goals of the project. The next four chapters will contain the results of all measures. In the case of test data, these will be presented mainly in statistical and tabular form. Other, somewhat more 'anecdotal' data - from interviews, dairies, and observations - will be presented in verbal, narrative form. These 'results' chapters will each also include a short discussion of the findings and their implications for the academic situation at the University of Khartoum. The final chapter will include a summary of all results and recommendations contained in the report. Various appendices will contain such items as the original Project Proposal, a summary of the activities of the researcher in addition to those directly connected with the research project, and copies of materials.

CHAPTER TWO

PREVIOUS RESEARCH

INTRODUCTION

This chapter deals with previous research in the area of study habits and problems. It is intended to serve as a minimal starting point for those interested in the problems of our students. The works cited here represent only a fraction of the available references, for the field is a broad one, encompassing several disciplines, notably those of Linguistics and Language Teaching, Education, Psychology and Sociology. The literature is categorized under three main headings: works concerned specificially with the Sudan and the University of Khartoum, those dealing with study behaviour, and those concerned with the improvement of teaching and studying at the university level. Most of the literature cited is available in Khartoum.

RESEARCH INTO STUDY AND LANGUAGE PROBLEMS AT THE UNIVERSITY OF KHARTOUM

At the University of Khartoum, research into the study problems and skills of students has a relatively long, if somewhat scanty, history. In 1965, Dr Muwaffak Al-Hamdani, of the Department of Education, reported on some research he had conducted mainly among students of Agriculture attending a course he was teaching in techniques of study. He gained data from his students sometimes in informal discussion, sometimes by observation in the classroom, by questionnaire, by tests and by discussion with other members of staff. One problem with this report is that Dr Muwaffak failed to include information about the number of students in his class, or the tests and materials used. It is thus difficult to evaluate his findings or to treat them with much confidence. However, he raises many interesting and thought-provoking issues, and it is instructive to review briefly his research.

Dr Muwaffak attempted to get data in several areas: general factors influencing efficiency in the university; habits in the lecture-room, in practical sessions, in the preparation of homework, and in preparing for and executing examinations; the use of the library; reading speed and comprehension. He mentions an earlier project along similar lines with which he would have liked to have made comparisons, but, lacking that data, he used the results of studies in the United States and Britain (though he does not give references for this) to 'make the problems encountered by Khartoum students clearer and more meaningful'.

Among general factors influencing efficiency, Dr Muwaffak found that students reported a large number of health problems - 35% said that health problems frequently interfered with their studies. Financial problems were reported by another 40% as severe enough to deter their studies. Though 40% also reported an unsatisfactory social life, this finding is confounded somewhat by the isolation of the Agriculture faculty at Shambat, and by the relative scarcity of female agriculture students. Though 'homesickness' was not reported as a major problem, over one-third of the students complained about lack of privacy in the hostels and over one-fifth reported not getting enough rest. The biggest single complaint about hostel life was noise - 56% reported that noise distracted their study.

Under the heading of 'Classroom Habits', Dr Muwaffak found that absenteeism was not a problem, though 50% would not attend a non-examinable course. A major problem from the students' point of view was a too-full timetable - two-thirds mentioned this and said that at the end of the day they were very tired. Though he did not ask about language difficulties specifically, Dr Muwaffak reports the interesting language-related finding that 83% of the students reported difficulty in notetaking. Over half of those who reported difficulty tried to write down everything that was said. Sixty-two per cent of the students said they didn't really try to take notes at all but borrowed them from others. Half the students reported not being able to understand what the lecturer was saying sometimes. Strangely, the investigator recommends training in note-taking techniques as a solution to the general problem.

A very interesting suggestion is made in connection with the finding that a majority of the students were reluctant to enter discussion in class or to ask questions of their teachers. Only sixteen percent said they would ask for clarification when needed. In discussion of this with his students, Dr Muwaffak found two socio-cultural causes - the students were afraid of appearing ridiculous and thus being shamed, and they felt strong social pressure against exhibitionism and toward conformity. It is certainly probable that language difficulties enter in here as well.

Eighty-three percent of the students reported that they went to the library only to do homework or to read assigned texts. Interestingly, only forty percent reported they encountered 'moderate' difficulty 'sometimes' with their reading, only eleven percent used the dictionary often, and only seventeen percent said they had difficulty picking out important aspects in their reading. Here one must exercise caution in interpreting this self-reported data. Students (indeed, all of us) are notorious for over-estimating abilities and underestimating reliance on such aids as dictionaries. Somewhat more objective measures of language difficulties are to be preferred, and Dr Muwaffak sought these, as will be seen. Continuing his study of homework, however, he notes a nearly two-thirds majority of students who report that they must wait for the 'mood' to strike them before they can begin to study. Sixty percent were distracted by daydreaming or roommates and visits from friends. Forty percent said they had no trouble concentrating on studies. Finally, half the students said they had difficulty budgeting their time to include study, recreation and rest periods. A vast majority (83%) reported that they just kept re-reading material until they had retained it. They reported an average of three and a half hours of study a day. Dr Muwaffak implies that he feels this is too little, especially considering his findings on reading speed and comprehension.

Reading tests were conducted with the Agriculture students, some Law students and some Economic and Social Studies students. Unfortunately, Dr Muwaffak gives no information about the nature of the tests, or the number or levels of students. It is therefore difficult to interpret his results. He found, however, that the average reading speed was 97 words per minute - slower than talking speed in English - but that average comprehension was very high - 92%. He concluded that the students were very slow but careful readers. He mentions a speed-reading course, which though 'distorted' by time-table irregularities, nevertheless produced in the students a 37% average increase in reading speed. This impressive result is somewhat dampened by his disclosure that the range of improvement was between 5% and 230% - a suspiciously large range which casts some doubt on the reliability of his speed test. He gives no data to enable judgement to be made, however. The high comprehension figure fits in with the students' own estimate of their difficulties with reading as given above, however; and it is probably true that, given unlimited time, even the poorer reader can compreh[illegible]d a text. The problem, as Dr Muwaffak points out, is that [illegible]w reading combined with long assignments and over-full timetables creates a stressful situation, to say the least.

Perhaps the most interesting of Dr Muwaffak's findings about examination problems came out of discussions he had with his students. He discovered that they did not adequately comprehend such key words in examination questions as 'analyse', 'discuss', 'compare'. He also found that 80% of his students would hesitate to go to a teacher for help while reviewing for exams - the majority went to fellow-students.

One of Dr Muwaffak's recommendations which I would like to emphasize here is in connection with his findings about students not being able to understand what lecturers say in English. He recommended 'that teachers should not take a great deal for granted, and try to fill in gaps in their students' knowledge before embarking on a new field...'. This strikes at a problem that has been mentioned and will be returned to in this report, that the responsibility for facilitating communication which has hitherto been placed upon the schools, the students, or on 'remedial' courses of one kind or another belongs just as much to the lecturer in Botany, in History, in Commercial Law or in Economics as it does to the lecturer in English Language. This will become increasingly true as more and more students enter the University with English which is deficient, through no fault of their own, but who have, nevertheless a right to the best possible education.

This brings us to the next piece of research at the University of Khartoum touching on study problems, that of Professor M. Macmillan, formerly Head of the Department of English(Macmillan 1970). In this paper, Professor Macmillan describes the results of an analysis of errors in written English, and of an English 'attainment' test written by first year students in Arts, Economics and Science, in the context of current views of bilingualism and language policy. Professor Macmillan is particularly concerned with the growing 'Language Gap' - the difference between native speaker standard and how well the second language speaker can use the language.(Macmillan, p. 10, gives a somewhat complicated formula for this which takes into account in an entirely specious way the 'competence' of the second language speaker - 'what he has been taught to do'; use of the formula shows that what matters is not what the student has been taught to do, but what he in fact does.) Professor Macmillan shows that, according to school certificate results over a period of seven years, while passes in Arabic, Islamic Religious Knowledge and English Literature remain at a constant level, those in English Language decline steadily from just over 70% in 1963 to just over 42% in 1969 (p.8) (similar figures for the 1975 examination are not available since English Language and Literature are now combined in the published data). This in itself would not be too serious from the point of view of university standards but for the fact that Professor Macmillan also gives figures which show that while school English proficiency was declining, when, presumably, the best students of English were not only not as good as previously, but fewer, the intake of the University was expanding by 96%. The problem of University admissions standards is a complicated one and will be discussed in some detail later, but it is enough here to say that Macmillan's figures suggest that English Language proficiency is becoming less and less important, and as a result, is declining, among University entrants (a small research project is outlined below which will bring the problem somewhat closer to the present).

Professor Macmillan raises two points in connection with the standard of secondary school English which are relevant to the problem of study in the University. The first simply questions the reliability of the School Certificate examination - how accurate a measure of English language attainment is it? In particular he is referring here to the 'large measure of subjective assessment - particularly where there is a shortage of experienced examiners'. The problem of subjectivity has been solved in large part by the introduction of objective sections - e.g. multiple-choice items - in the English Language papers. The second of Macmillan's criticisms, however, is still with us - 'The question also arises of the extent to which the examination, even if reliable, effectively measures attainment in the skills appropriate to the linguistic demands of the University'. In a sense, this is an unfair question since the School Certificate Examination is primarily an achievement examination, measuring how well the pupils have learnt what they have been taught in the schools. It has not been designed to be a proficiency examination, predictive of university performance. Yet, in another sense, the implied criticism is a fair one, since the School Certificate is in fact used to decide who is fit to go to university and who is not. This division of purposes and its consequent problems will be dealt with more fully in Chapter Five, but Professor Macmillan's way of dealing with it was to assess the extent of the remedial problem confronting the first-year university students by analysing 1000 scripts, and by examining 452 students in three faculties. Briefly, he found that students made more errors in writing for their 'specialist' subjects - History, Economics, Literature - than when they were writing for their English Language courses. The Science students made about half as many errors as the other two faculty groups in their specialist writing - since they did not at that time do an English Language course, no comparison could be made with that type of writing. Macmillan also found that among the Arts subjects, History, Geography, and Literature scripts contained verb tense errors amounting to between seven and nine percent. In Philosophy, however, these kinds of errors accounted for thirty percent of the total, which he attributed to the verbal complexities of syllogistic structure.

Macmillan's 'completely objective, multiple-choice type attainment test' was standardized by giving it to some British A-level students so that a mark above 90% would indicate near-native ability and one below 10% would indicate total inadequacy for university work. The results of giving this test to the 450 students was that it provided a normal distribution of scores with an average in Arts of 51.4%, in Economics of 52.9% and in Science of 52.2% - not very different. He found also that 32 non-Arabic students, mainly Greek and Southern Sudanese, averaged as a group 66.1%. Macmillan makes no comment upon this finding. He does make suggestions for the improvement of English standards in both the schools and the University. In schools he recommended that English be offered compulsorily for two years and optionally for the final four, 'for those who wish or need to learn the language', i.e. mainly those who were university-bound, or hoped to be. Within the University, Macmillan suggested that students be streamed into two main proficiency groups, the weaker ones given basic remedial English to improve their accuracy, the more advanced given fluency and functional courses. He recommended use of his attainment test described above for grouping the new students. The programme he outlined for University English, if it was ever instituted, is certainly not in use now.

In the above discussion it was suggested that the best students of English in 1969 were no longer as good as those in previous years. This is especially important in a consideration of University admissions, for it is the 'best' students who are admitted. In 1972, Mr John Swales, now Director of the English Language Servicing Unit at the University of Khartoum undertook a small research project as a result of a visit he had paid to the Sudan at the invitation of the Ministry of Education. Everywhere he went while visiting schools around the country, he found it 'almost universally assumed...that the present Secondary School leaver's English ability is markedly and generally lower than that of pupils leaving school a few years ago' (Swales 1972). To test this assumption, Swales obtained 15 examination scripts written by boys from one school (Rufa'a) in 1966 and 15 written by boys from the same school in 1972, on the same topics. He had the papers typed to remove prejudices based on handwriting, randomly ordered, and marked by 13 Sudanese Secondary School teachers working on a post-graduate course in Britain. The average mark for the 1966 scripts was 41.1% and for the 1972 scripts, 37.1%. Swales suggests that this finding does not indicate a 'markedly and generally lower' standard. He goes on to say, however, that of the top ten scripts, seven had been written in 1966. From this he concluded that the '"best" pupils are not as good as they used to be'. Though Mr Swales does not draw attention to it, this finding suggests that standards may in fact be declining quite a bit among the University entrants - the 'best' students. These findings represent, to my knowledge, the only research that has been done to investigate the much-lamented decline in English proficiency.

A publication which does not deal specifically with study problems, but which is a useful source of information about student character and concerns is a study of Khartoum University Students Union (KUSU) (Salah 1971). Prepared originally as an Honours dissertation in Political Science, this little book deals with the history of the students' movement in the Sudan, and naturally emphasizes the political aspects of the Union. It covers the origins and development of KUSU; data on student backgrounds and character; a description of the various student political groups; and an analysis of KUSU both as a pressure group and as an interest group in national politics. For those interested in student problems, Chapter Four, 'Who are the Students?', contains many interesting observations about the make-up of the student body, though his statistical references require careful reading and occasional correction. Salah presents an interesting piece of data based on a survey of students (how many or at what levels he does not say, unfortunately), asking how 'happy' they were with their lecturers, during the 1969-70 academic year. He found that the students of Medicine were by far the most satisfied, followed by those in Veterinary Science, Agriculture, and Law - the 'professional faculties'. The least satisfied students were to be found in Arts and Science. Thus dissatisfaction is most prevalent, apparently, among those students who are not able to gain admittance to one of the professional faculties and whose future is therefore somewhat less secure. Chapter Five on students' political attitudes is also of interest although possibly somewhat out of date by now. For that matter, the whole topic of the students' union has been overtaken by events and by plans to reinstitute a union on individual rather than political representation. Still, the book presents a starting point for research into one facet of student life and problems and contains information and views not available in print anywhere else.

Another piece of research that represents a marginal, but important contribution to the study of academic problems is one by two former members of the Geography Department who present data purporting to study student geographical perception (O'Keefe and Parsons 1974). The two researchers gave a short test to some 29 third-year and 39 fourth-year students in Geography who had shortly before returned from a field trip to the Southeastern Sudan. The test required the students to show on an outline map (which included rivers) 1) the route of the field trip and principal towns visited; and 2) the location of fourteen principal towns; and to give the approximate date of the beginning of five principal geological periods. O'Keefe and Parsons fail to give adequate information about how the data were collected, but it would appear from their report that the analysis of the data was far more rigorous than its collection. Since they allow the reader to draw his own conclusions - 'The results of this survey speak for themselves...' - we shall take a brief look at the results. To show their 'perception' of the field trip route, the students were asked to draw the route on a map, indicate the location of the 'major towns' (unspecified) and mark the route through Dinder Park. Following the marking scale used by the researchers, it can be seen that 51% of the students showed the route entering Dinder Park, 65% showed the route following the correct bank of the Blue Nile, 85% showed the four major towns and 25% routed the trip through the Ingessana Hills. Though their data indicates something, perhaps, about the seriousness with which field trips are undertaken, it is doubtful that it measures adequately the 'perception' of a group of students. Had the students been informed that the task required accuracy and been provided with instruments to work with, the question asked by the researchers of 'whether the students appreciate the significance of exact measurement' might be more plausibly answered. This is especially evident in their emphasis of the evidence that 'the perception of Dinder Park varied alarmingly, extending for some students as far north as Kassala and, for others, as far west as the White Nile', though the students were never told to indicate the boundaries of the park, except indirectly in the instruction to indicate the route through the park. In locating the fourteen towns in the Sudan, students were given a point if they were able to place the town within 200 kilometers of its actual location and an extra point if they were within 100 kilometers. On this task the students averaged 64%, or 1.3 points per town; i.e. they were, on the average, able to locate the towns within 170 kilometers of the actual location, with only the outline of the Sudan and five major rivers as reference points - surely a worthy performance for this sort of testing situation in a country as large as the Sudan. The researchers make much of their finding that there were no significant correlations between 'perceptions' and town size, distance from Khartoum or number of times the student had visited the towns, without saying precisely what this indicates about the students' perceptions. It is likely, however, that these low correlations reflect the unreliability of the measure at least as much as they reflect student perceptions.

The data on the question of geological time nearly defies description. The unnecessarily complicated table reporting the results is difficult to fathom given the meagre data provided by the researchers. However, they do state quite clearly that the fourth-year students averaged two out of a possible three on the question, which, to employ their scoring qualification, is 'reasonable'. The third-year did somewhat worse, averaging 1.25 - between 'reasonable' and 'wild guess'. A final comment: a substantial number of students apparently refused to attempt this question at all, and though O'Keefe and Parsons pass over this result in silence, it may be that here lies a more accurate measure of student perception than any others they provide! This discussion of an interesting though not very informative piece of research has been included because, first, it is the only one that purports to deal with a very interesting aspect of student behaviour, but also because it is an example of what can happen when researchers have an 'axe to grind' - they bemoan what they present as a poor performance by their students, when, in fact, considering the nature of the task itself, and the circumstances surrounding it, the results appear quite good. There is certainly wide scope for research on the perceptions of our students and how they affect their performance (see, for example, Barron 1975 on students' problems interpreting diagrams) but this report does not add much to our understanding.

There are numerous M.A. and Ph.D. theses both from foreign universities and from Khartoum University, which deal peripherally with study-related problems in the Sudan. Of these perhaps the most relevant is the doctoral thesis by Mustafa Mohamed Abdel-Magid (1972), now Head of the Linguistics Department of the University of Khartoum. In his research, Dr Mustafa was investigating two main questions: 1) given the Arabicization of secondary education, is agreement possible about what English is for and what the aims in teaching it should be? 2) given that English will continue to be the medium of scientific and technical studies, even when Arabicization is extended to higher education, is the kind of literary English which characterizes the secondary school syllabus the most effective instrument for the needs and uses of English as a medium of higher education? To answer the first question, Dr Mustafa employed a survey of those involved in the teaching of English in the Sudan. The second was investigated by means of a test to compare the performance of students in 'literary' and scientific-technical English. He found a very high degree of consensus among educators in the Sudan that the primary need for English in education was to gain access to scientific and technological information, to communicate with the world at large, and to maintain economic and commercial ties. In a survey of student attitude and motivation, Dr Mustafa found that, despite Arabicization (62% said they thought Arabic medium instruction made learning easier), the majority of students recognized the importance of English (74% said they thought knowledge of English helped in getting a good job) and displayed favourable attitudes towards learning it. Finally, Dr Mustafa found that students pursuing scientific and technical studies at the University of Khartoum and other Sudanese institutes of higher education performed significantly better in literary English than in scientific English.

Dr Mustafa's work is of great importance to the researcher in language education in the Sudan, and does much to explain some of the problems of University students. His chapters on the Educational History of the Sudan, Language and Education since Independence, and English in Education, though, in the latter two cases, somewhat overtaken by events, are necessary reading for those interested in these problems.

Another doctoral thesis which discusses some problems relevant to the present research is that by Babiker Idris El-Hibir (1976) which deals with sources of common errors in the written English of Sudanese secondary school students. In his discussion of reasons for learning English, Dr Babiker points out that such a consideration as access to information from the English speaking world has no official recognition in the schools and does not affect teaching. The main reason for studying English is to gain access to the tertiary level of education. Social status and fashion, he notes, are also important reasons for studying English and may be used by teachers to motivate their pupils. This last factor is of particular interest in a discussion of the trend toward Arabicization at the University. It may be that students will oppose such a move from motives of fashion in education rather akin to fashion in footwear - platform shoes might be uncomfortable and difficult to walk in, but they _are_ fashionable.

Yet another relevant work, a Master's thesis in statistics (A/Fattah 1977) will be referred to in Chapter Five. Some language-related theses which have been produced at the University of Khartoum include those by Angele Tadros (1966), an analysis of interference errors in the written English of school pupils, Tawheeda Osman (1971), a study of the architectural 'register' of English, and Anwar Wagi'alla (1977), an analysis of vocabulary in chemistry textbooks - all of potential use in devising courses in academic English. There is, obviously, great scope for further research into the language study problems of students at school and university level in the Sudan. Students of Linguistics, Arabic, Psychology, Sociology and English could contribute much to our understanding of this complex area. Indeed at the time of writing, Honours and postgraduate students in English are conducting small research projects on student attitudes toward English and Arabic, English proficiency improvement, the 'declining' standards of English, and language attitudes in the Southern Sudan, among others. There is also a project to compare some attitudinal characteristics of Arts and Science students being initiated in the Anthropology and Sociology Department. The field of educational research is a relatively untouched one in the Sudan and the University is an obvious source of both expertise and data.

Another research report which bears on student problems at Khartoum is one by an M.A. student in the Institute for African and Asian Studies (Sara Yousif, forthcoming) which is a report on a survey of languages used by first-year students in the University. The data was collected by questionnaire from the 1973-74 and 1974-75 Preliminary-year classes. The findings are compared with linguistic data from the 1956 census to examine the expected number of students from various language groups and the actual numbers enrolled. Such information is valuable in making language policy decisions - for example, the Arabicization of the University - and for monitoring the effects of admissions requirements - for example, recent decisions to raise the standard of School Certificate Arabic acceptable for admission have reputedly lowered the numbers of non-Arabic speakers in the incoming classes.

Three further references on the language situation in the Sudan which should be consulted by those interested in the problems of students include an article 'Arabic in the Sudan' (Hurriez 1975) which deals especially with the varieties of Arabic to be found in the country; 'Language and Education in the Southern Sudan' (Yusuf al-Khalifa 1975) a valuable outline of language policy, which is now, however, somewhat outdated by events; and 'Teachers and Language in the Sudan, a questionnaire Survey of Teachers in Junior Secondary Schools' (Jernudd 1975), which deals with the use of varieties of Arabic in teaching. Finally, a major work which is under way and will in future be a valuable resource document for language-related studies of all kinds in the Sudan is the Language Survey of the Sudan, which is being conducted under the direction of the Institute of African and Asian Studies of the University of Khartoum and is an attempt to identify the languages in use in the Sudan, the number of speakers, situations of use and other such data. This mammoth task is still in its initial stages, but already has data from 8,300 informants in the Nuba mountains.

RESEARCH ON STUDY BEHAVIOUR

It is a common assumption that students' study behaviour is related to performance in their academic work: 'Success in study depends not only on ability and hard work but also on effective methods of study' (Maddox 1967). Such an assumption is a popular one because it suggests that courses in 'Study Skills' will help students to boost their marks and universities to improve their output. Much research has been conducted to investigate this assumption. The most common method of research is to give students a questionnaire asking them to tick items related to their study behaviour. Thus the behaviour of 'good' students can be compared with that of 'bad' students. The most famous of these study behaviour questionnaires is one produced in the United States in the 1950's - the Survey of Study Habits and Attitudes (SSHA) (Brown, Holtzman 1955). The authors of this questionnaire found that students who ticked the 'good' study habit items were often better students than those who ticked the 'bad' items. The survey questionnaire included items to measure 'work methods' (effective study procedures), 'delay avoidance' (promptness in completing work), 'teacher approval' (favourable opinions about teachers), and 'educational acceptance' (approval of educational objectives). The sum of work methods and delay avoidance produced a 'Study Habits' score; the sum of teacher approval and educational acceptance produced a 'Study Attitudes' score; and the sum of all four produced a 'Study Orientation' score. As was stated above, there are things which 'successful' students do, as suggested by the SSHA results: they plan their study time, complete their work on time, limit their extra-curricular activities and have high motivation. On the other hand, research studies have shown that these 'good' study habits do not have a terribly great effect on university performance: study orientation correlated at .32, study habits at .29 and work methods at .19 with examination marks at the end of the year (Cowell and

Entwistle 1971). Another study (McCausland and Stewart 1974) found the same variables correlated with university grades at .40, .30, and .32 respectively. While all of these correlations are significantly different from zero, none are very strong - the highest, .40,suggests that only 16% of the variance in university performance may be due to 'study orientation'. Further, a study comparing library skills with SSHA (Corlett 1974) showed that the former skills correlated at .43 with university grades while the SSHA correlated at only .26. Finally, Maddox (1963) found that the SSHA 'good' study habits were significantly more common among the students with the worst university performance than among the better students (cited in Biggs 1970a) - the opposite of the original Brown-Holtzman finding. The conclusion from such contradictory findings is that academic success is a complicated area and a blanket reference to 'good' study habits for all students in all subjects is not meaningful.

One approach to this problem has been to develop study behaviour measures relevant to particular fields of study to see if a stronger relationship with performance is observed. One such study (Cooper and Foy 1969) studied pharmacy students by giving them a 45-item Study Habits Inventory and asking them to report the time they spent studying. They found no substantial correlations between study habits and examination success and concluded that it was a complex subject. Another researcher (Biggs 1970a) gave a questionnaire measuring different 'cognitive styles' to Arts and Science students to see if the differing tasks of Arts and Science required differing strategies of study. He found that the Arts students were more dependent on study strategies than were the Science students who were more governed by previous (i.e. secondary school) performance in Science; that Arts students tended to be more organized than the Science students, though organization (as in other studies) was not directly related to performance in either faculty; the Arts students were more tolerant of ambiguity - more able to adjust to novelty and complexity - than the Science students; the Science students were more 'intrinsically' motivated - interested in work for its own sake; Arts students were less dogmatic - more likely to question basic assumptions - than Science students. Biggs draws two main conclusions about the improvement of study behaviour from his findings: first, that the value of straightforward study skills programmes may be questioned. He suggests that good study habits are as much a refuge of the poor students as a success factor for the good students: 'There may well be conditions under which they are valuable and certain kinds of student to whom they are suited but these task and person conditions have yet to be discovered...' (1970a:172). Second, the results suggest that there are general differences in the task of study improvement in Arts and Science. The Arts student has to develop strategies for sorting and organizing masses of apparently unorganized material; the Science student is faced, on the other hand, with integrating new material to existing patterns and hierarchies.

One final investigation of study behaviour of the questionnaire type is the only one known to me conducted in a developing country. Bethlehem (1973), using a study behaviour inventory developed for use in Britain (Entwistle, Nisbit, Entwistle and Cowell 1971), examined 577 students at the University of Zambia. He also gave a group of the students a short course in 'how to take notes, organize study, examination techniques, etc.' toward the end of the year. The 'study methods' scores from the inventory correlated at .29, the 'motivation' score at .32, and both together at .35 with university grades. These figures were significantly higher than those found by the authors of the questionnaire in Britain - study methods .18, motivation .19 (Entwistle, Nisbit, Entwistle and Cowell 1971). Further, he found that the study methods course made no difference to the performance of the first year students, but that the grades of second-, third-, and fourth-year students who had attended the course were better, almost significantly so ($p < .05$), than those of students who hadn't attended the course. This suggested to Bethlehem that the students need experience in the university environment before they can take advantage of the suggestions given in the course. Overall, however, Bethlehem's findings are no different from those of other researchers - that 'good' study habits produce only a marginal improvement in performance.

Apart from study behaviour itself, scholars have approached the problem of study from the point of view of motivation. The assumption is that performance is a combination of good study habits plus motivation and that there is an interplay between the two factors: high motivation can be depressed by poor study habits, and good habits can be ineffectual if motivation is lacking. Motivation may be extrinsic - one studies because he wants a degree or to please his family - or intrinsic - he enjoys the task for itself, or he has an inner need to achieve or succeed at any task he undertakes. A good review of studies of motivation and study habits may be found in Entwistle, Thompson and Wilson (1974). In their review, they discuss many personal and psychological characteristics of students such as anxiety, conformity, adaptability, syllabus-bound students (conscientious and systematic) and syllabus-free (independent). They conclude that 'until a clearer understanding is obtained of how motivation, study habits and personality interact and interrelate with academic performance, little progress can be expected'. They suggest investigations of how students view study methods within their own framework of values.

One such study (Goldfried and D'Zurilla 1973) attempted to validate the SSHA by devising a system of student-ratings of 'actual behaviour situations' and correlating these with the Study Habits Survey findings. They got somewhat higher correlations than previous studies which had used university grades to validate the study behaviour - that is the students' own expectations of 'good' study habits matched the SSHA values to a greater extent - but, paradoxically, the students' expectations had a low, non-significant correlation with university grades! In other words, students don't know what makes a good student either.

Another study of motivational factors in performance (Kearney 1969) suggested learning ability and study skills were affected by motivation, and that high ability (intelligence) was not necessarily accompanied by high motivation. The author concludes that 'study is self-directed education, and if students are to acquire study skills, they have to do it for themselves. The staff can assist in various ways, but only indirectly...making courses interesting and relevant, and...designing the short-term goal-reward situation'. This latter suggestion is one also made by C.A. Mace in a standard work on study characteristics, *The Psychology of Study* (1968): '...objectives should be "personal, proximate and precise"'. That is, students must be able to see personal relevance in educational goals, and teachers must make proximate (short-term, e.g. weekly assignments) and precise demands on them. The implication is that the very act of giving frequent, precise work assignments can in itself increase motivation, and improve study habits.

A study which attempted to locate differences in attitudes and behaviour among high- and low-achieving university students is one by Pond (1964). He and his colleagues found that high achievers did more reading, attended more classes, took more notes, and took part in fewer sports - in other words, worked harder - than low-achievers. The high achievers also thought their assignments were more worthwhile, had fewer worries, and found teachers more accessible than did the low achievers. The latter group often blamed lack of supervision, large classes, speech difficulties of lecturers, distractions in the library, and the scarcity of books for their failures.

Another researcher (Thoday 1957) investigated time spent in 'formal' (in class), 'informal' (personal study) and 'leisure' activities by students. He found that the average working time per day was 6.25 hours - 3.5 hours of formal work, 2.75 hours of informal work. He found that there was a balance between formal and informal work - Science students did more formal (in class) work, less informal; Arts students did less formal but more informal work. Thoday also found a relationship between the amount of work done and examination results.

In sum, these studies reveal how little we know about the personal, behavioural, and motivational contributors to academic success. They suggest that 'good' study habits play a part, but not an overwhelmingly important part in performance; that 'good' habits and strategies probably vary from faculty to faculty; that students can benefit from 'study skills' courses, but only indirectly, by applying study suggestions to their own needs and personalities; that motivation is an important factor in success; and that lecturers can aid students indirectly by providing shorter term, precise goals.

It is important to note, finally, that these studies are almost exclusively based on university situations in Western, developed countries. All of the findings have to be interpreted, for our present purpose, in the context of a university in a non-Western, developing country. It may be that the differences will be minimal and trivial; it may be that they will be major and fundamental. At least, we must be aware that to make comparisons across cultures - e.g. American vs Sudanese - will always favour the culture the data are based on. It is essential to distinguish between the artifacts of Western education and the culture the artifacts came from. Insofar as the University of Khartoum is involved in these artifacts - e.g. lectures, blackboards, textbooks, microscopes, overhead projectors, taxonomies, timetables - research findings, no matter where the data come from, may not be irrelevant. But, whenever the focus of interest is on the culture of students - their ways of dealing with education, strategies for learning - great caution must be exercised in interpreting the findings. In short, what makes a successful student in Keokuk may not make a successful student in Khartoum.

STUDIES AND SUGGESTIONS FOR BETTER TEACHING AND BETTER STUDYING

This section will review literature, much of it available in Khartoum, which researchers, teachers and students may consult and use to improve their work.

Study Habits

One of the landmark works on study habits has already been referred to in the previous section: The Psychology of Study by C.A. Mace. Originally published in 1932 and revised in 1968, it is an excellent introduction to the study problems of students, from the psychologist's point of view. Mace includes chapters on Perception, on Memorizing from books and lectures and for examinations, and on Motivation. There are a number of discussions, based on the findings of psychologists, of what procedures should help students with their studies. For example, in his chapter on Memorizing, Mace points out that, when learning something 'by heart', the student is best advised to employ short periods of study over as long a period of time as possible, and to employ active repetition - trying to recall the material without using notes - rather than passively reading the notes.

A similar work, though longer, covering more ground, and more specifically addressed to students is How to Study (Maddox 1963). The book deals with study timetables, motivation, learning, reading, note-taking, examinations, writing English, basic mathematics, and mental and physical health. It is full of advice on all manner of problems and situations. For example, in the discussion on lectures, Maddox gives firm advice on where to sit:

> 'In many lecture theatres, the acoustics are bad, so if you sit at the back it may be a strain to hear the lecture...you may be distracted by having the rest of the audience in your field of view. The best place to sit is in the middle towards the front.... Believe it or not those who sit in this position usually do better than those who sit at the back.'

Though this book is intended to be read by students, one cannot imagine a student actually doing so. There are no exercises to help him put to use what Maddox says are useful helps, no way for the student to choose from among the plethora of aids and advice the combination that best suits him. In fact when one reads in Maddox's preface, '...I found that, although many students know pretty well what they ought to do, they don't do it,' one is tempted to read no further. Still, How to Study, like Mace's book, is a useful compendium of practical, common sense advice. They would be useful aids to the designer of a study skills course, who could devise exercises and tasks to help the students do what they 'should'. They would be useful, too, to the lecturer who was interested in adapting his teaching style and approach to fit the ways students were likely to learn.

Two books which do provide plenty of practice for the student are texts in study skills for students working in English as a foreign language: R.C. Yorkey, Study Skills for Students of English as a Second Language (1970) and J.B. Heaton, Studying in English (1975). The Yorkey book is an American publication, based on the author's work at the American University in Beirut. It contains exercises in listening, reading, note-taking, dictionary use, writing reports, and examination techniques. It is a workbook and most of the exercises are meant to be done by the student in the text itself, making it expensive for a large group year after year. The Heaton book is a British publication, much smaller and cheaper than the Yorkey one. The practice exercises are of a small number of types, though the content is varied. Much of the material is difficult and may be boring - the book needs to be heavily supplemented with teacher-prepared material. It gives much more practice in the two basic skills of note-taking and reading than does the Yorkey book. Heaton is the recommended text for the Faculty of Arts Preliminary-year study skills course at the University of Khartoum.

Before leaving the area of study habits, it should be pointed out that much of the work done by the English Language Servicing Unit falls within this category and there have been some excellent materials produced by its members of staff: notetaking for students of Architecture, dissertation writing for Engineering students, and examination writing techniques for science students, to give only a few examples.

Teaching

Once again, the English Language Servicing Unit must be mentioned as an important source of information about teaching in a second language in the University. Their resources, both human and material, should be called upon more and more for advice and techniques of teaching anything in a foreign language. The Newsletter published by ELSU staff, ESPMENA Bulletin, is a great source of ideas and materials especially suited to the Khartoum-North Africa-Middle East situation. It is available free of charge to all subscribers.

Concerning the improvement of lectures in general, an invaluable source of research findings and insight is Bligh (1971), What's the Use of Lectures?. In his first chapter Bligh presents the case that lectures teach information. He develops this idea by discussing the psychological factors affecting information learning and goes on from there to suggest techniques to improve the lecture as a learning source and methods that can be combined with lectures to enhance their function. Finally, Bligh shows how lecture preparation must reflect these techniques and methods. The book is a useful guide for those teachers concerned with providing the most information to their students in a form they can make use of. The research reviewed by Bligh is of enormous value to the scholar who is interested in conducting his own studies of the use of lectures: he cites 107 studies to show that lectures are as effective as other methods for teaching information; 28 studies to show that lectures are relatively ineffective at stimulating thought among students; 25 studies to show that lectures are not very good at changing students' attitudes; and 15 studies to show that lectures are not as popular with students as other methods of teaching.

One resource will be mentioned in connection with examinations at the university: Assessing Attainment (Tittle and Miller 1976). This small book is a useful, very practical guide to writing and marking examinations. It contains a short introduction to basic concepts in testing, but the bulk of the book is a step-by-step guide to developing examinations. There is also a useful reference bibliography.

Finally, there are two sources of more information of a practical nature for the improvement of university teaching and learning which will be mentioned here. The first is the University Teaching Methods Unit (55 Gordon Square, London WC1 HOBR, U.K.). This is a consultative unit concerned with cooperating with lecturers interested in the problem of teaching and publicizing solutions to them. The Unit is a useful source of information about research findings on various techniques and approaches. The second source is an American one: The Center for Research on Learning and Teaching (109 E. Madison, Ann Arbor, Michigan, 48109, U.S.A.). The center, as the name implies, conducts research and reports on its findings. The Senior Research Scientist of the Center, S.C. Ericksen, has said of the work of the Center: 'Over and over again, I have found that teachers in the discipline specialties are the ones to make the final decisions about how to help a student to learn. The teacher is the cook in charge of the kitchen' (Personal communication). As a result of this belief, the Center produces periodically a 'Memo' for lecturers in all subjects providing data and information on instructional developments, techniques and methods.

The CRLT approach places the burden of improving both teaching and learning on the shoulders of the teacher. In concluding this chapter of review of research and information on study problems, it is necessary to emphasize this issue. There are two approaches to the problem of study behaviour - the remedial course in study skills or English skills; and an approach which seeks to adapt courses, methods and materials to the needs of the students. The first of these is in many ways the easier - it places the burden for improvement on the student. Yet the research cited in this chapter makes it clear that such courses contribute only marginally to 'success'. The second approach is the more difficult, for it burdens the teacher with seeking ways of improving his teaching without any assurance that his improvements are worthwhile or even noticed by his students. His contribution to the study behaviour of his students is an indirect one. He may feel that he has no cause to adapt his teaching to the requirements of students: there are great motivational problems with this approach. Yet it seems likely to be the only effective approach to the problem of study behaviour if we are not to commit ourselves to an ever increasing amount of remedial courses.

A final word about previous research. A glaring lacuna in the literature on study behaviour is that of students in developing countries studying in a second or foreign language. This is a tremendous lack in our knowledge. There is a related failure at the University of Khartoum for staff and students to engage in research on the problems of students, whether of a linguistic, social, psychological or educational nature. The University is a major untapped source of both research expertise and data, in a unique position to make a world-wide contribution in educational research. Here is a wide field of possibilities for staff research proposals, M.A. and Ph.D. theses, and Honours dissertations in several disciplines. The recent re-emphasis of the University as a centre for research may be taken advantage of and much progress made toward improving the quality of one of the Sudan's most valuable resources - her University.

CHAPTER THREE

THE STUDY HABITS RESEARCH PROJECT: AN OVERVIEW

INTRODUCTION

The purpose of this short chapter is to give an overview of the Study Habits Research Project, including an outline of the project, the timetable, a financial summary, and a summary of the goals of the research.

OUTLINE OF RESEARCH PLAN

I. Planning and Orientation

1. Discussions with members of staff and administration about the nature of the problem and lines of research most likely to be productive.
2. Observing lectures, tutorials.
3. Engaging in some teaching to get to know students and problems first-hand.
4. Reviewing previous research.
5. Planning research design, preparing materials, piloting.

II. Data Gathering

1. Language Proficiency Testing: Reading in Arabic and English, Listening in Arabic and English.
2. Interviews of students to gain information on personal data, study behaviour, social life, motivation.
3. Students' diary of activities for one week.
4. Student data from University records, personal files.
5. Sudan School Certificate results.

6. University Examination Results.

7. Longitudinal study: English Reading test and questionnaire in second academic year.

III. Analysis of Data and Report

1. Computer processing of quantifiable data.

2. Production of a Final Project Report including recommendations for action by the University.

TIMETABLE

I. Planning and Orientation

December 1975 - June 1976

II. Data Gathering

1. Language Proficiency Tests: July 1976

2. Interviewing: July - August 1976

3. Diaries: July - August 1976

4. University Examinations: September 1976

5. Longitudinal Data: March 1977

III. Interim Report on Language Testing

October 1976

IV. Analysis of Data and Report

Completed by 31 October 1977

FINANCIAL SUMMARY

I. Total Ford Foundation Grant	$31,000	
Amount converted to Sudanese pounds	$21,000	(£S 8,253.060)
II. Total Payments to Research Fellow including salary, travel		£S 6,250.000
Salary supplement (in US$)	$10,000	

III.	Total Research Expenditure, including Clerical, Research Assistants, Materials	£S 1,550.000
IV.	Report Publishing Costs	£S 500.000

GOALS OF THE PROJECT

I. To present a report describing students' study problems at the University of Khartoum, especially among Preliminary-year students, and recommend ways to alleviate the problems.

II. To provide data, advice and help to members of staff and students at the University in the areas of language and study skills.

III. To generate a wider concern for, and a research interest in, the study problems of University of Khartoum students, among members of the teaching staff and administration, and among students themselves.

DISCUSSION

The Study Habits Research Project was administered by a Steering Committee, comprising Mr John Swales, Director of the English Language Servicing Unit (Chairman), Dr Tigani Hassan, Dean of Students, Dr Mustafa M. Abdel-Magid, Head of the Linguistics Department, Dr Sayyid Hamid Hurriez, Senior Research Fellow, Institute for African and Asian Studies, and Dr Dan Douglas, Project Research Fellow. Since April 1976 the Project has been administratively affiliated with the Students Affairs Section of the University, under the Dean of Students. For most of the project period, an office was provided by the Students' Affairs Section. This arrangement worked out very well from an administrative point of view since it provided the project with an 'official' identity, yet unconnected with any single Department or Faculty. On the other hand, it did tend to make day-to-day contact with teaching staff and students a bit more difficult. In fact, I consider it a major failure of my role as University Research Fellow that I did not involve more staff and students in the project. A more fruitful approach especially in light of the designation of the project as a piece of 'action-research' might have been to direct a series of related, but separated, smaller projects, conducted by members of staff and students. A consideration of such an approach should be undertaken before the research is continued.

Some 15 or 20 students and teaching assistants have been involved in the project at one time or another as research assistants.

They were drawn mainly from the Departments of English and Arabic. They did much of the marking of tests, interviewing and collation of data. They were paid on a fee basis. Similarly, English-Arabic translations, and Arabic typists were hired on a temporary basis. English typist-assistants were hired for longer periods, but also on a fee basis. In this way, the 'infra-structure' of the project was kept to a minimum. Paper, stencils, and other supplies were bought as needed, and University facilities were used for duplicating. One chronic need has been for a typewriter - machines were borrowed from faculty and department offices from time-to-time, but a better solution would have been to purchase a typewriter for the project. Computing costs were absorbed by the University owing to the affiliation of the Project with the Students Affairs Section.

The major portion of the data was collected from a group of some 75 students. A second major criticism of the research design is the small size of this sample. At least double the original sample of 100 should have been chosen to allow for drop-outs. On the other hand, once the group stabilized at around 75, strenuous efforts were made to keep the students, and a high degree of continuity was maintained during the main data collection period. Further, statistical tests were applied rigorously to obtain the most data possible from the small sample and to ensure against 'chance' findings. But there is no doubt that more complete and informative results could have been obtained from a larger sample. The main advantage of using such a small group (and the reason a small sample was chosen in the first place) was that continuity was easier to maintain. Communication and scheduling is always a problem in Khartoum, and it was crucial that such components of the research as the interviews and the diaries be handled as efficiently as possible. As it was, getting interviewers and interviewees in the same room at the same time, diaries distributed and collected and money paid to students in the sample was a problem of organization even with only 75 people. The students in the sample were paid for each stage of the research they participated in and this helped ensure that they turned up at scheduled times.

CHAPTER FOUR

LANGUAGE PROFICIENCY TESTING

INTRODUCTION

The language proficiency tests will serve as a background for the interpretation of the other components of the investigation. But they may be studied in their own right, and the aim of this chapter is to present and analyse the results of the tests. There follows a description of the experimental method employed, including a discussion of the subjects, the testing materials, and the procedure. This is followed by a statistical summary of the results, a fuller discussion of results, and a summary of conclusions, with suggestions for further research.

METHOD

Subjects

The subjects were a sample of Preliminary-year students from four Faculties: Arts, Economics, Law, and Science. The sample was selected to represent the subjects' home province (one-third from the Southern Sudan, two-thirds from the rest of the Sudan) and sex (one-third female). Originally a total of 100 subjects was selected (40 from Science, 20 from each of the other Faculties), and these were notified by name with letters sent through their English Language classes. In the letter, they were asked to appear for the first testing session in the Examination Hall on Friday, 16 July 1976. They were also offered payment for participation in the testing of 50 piastres for each of two sessions. In the first session, 83 students participated (Table 1).

Table 1: Subjects

Faculty	Total	Male	Female	South	Rest
Arts	17	11	6	6	11
Economics	19	13	6	9	10
Law	20	16	4	8	12
Science Mathematics	17	20	7	8	19
Science Biology	10				
Totals	83	60	23	31	52

In the second testing session, one week later, 75 subjects participated, a 90% retention rate.

Materials

Four tests were administered: Arabic and English Reading, Arabic and English Dictation. All the tests were integrative measures, testing global skills related to general language proficiency rather than discrete skills or abilities. Reading and listening were considered to be the two most important skills required of the new students immediately in their studies. Writing becomes important somewhat later, and strictly speaking, not until they are in relatively advanced seminars. Two English reading tests were constructed, one for Science and one for Arts, Economics and Law while a single Arabic reading test was constructed for all four Faculties. These were 'cloze' tests, constructed by deleting every seventh word from three reading passages of about 375 words each, to give tests of 50 items. Instructions for each test were included in their respective languages, as were practice tests in each language.

On cloze tests, subjects are instructed to fill in the deleted items using the same words they think the author used originally. Scoring may be done in different ways - accepting synonyms, or grammatically acceptable responses or giving weighted values to different responses. It has been found, however, that allowing credit only for the exact replacement of the deleted items produces substantially the same results as any of the much more cumbersome methods above (Taylor 1953; Anderson 1972; Oller and Conrad 1971), at least in English. Cloze tests have been shown to be valid predictors of reading ability in several languages other than English - Setswana, Amharic, Thai, Vietnamese, Malay, Japanese, Chinese, French, and German - but never in Arabic. Therefore, the findings of the Arabic reading test are doubly interesting.

The Science reading test was based upon a passage from a Chemistry textbook chapter, entitled 'Oxygen' (Sienko and Plane 1966). The test for the other three Faculties (hereafter known as Humanities) was from a published essay entitled 'To Hell with Culture' (Read 1963). (Copies of each test, with the answers, may be found in the Appendix). The Flesch Readability Formula applied to each passage suggested that they were of slightly more than average difficulty for native-speakers of English (pre-testing with fourth-year students indicated that the Science test was a bit more difficult than was the Humanities test, cf. Douglas 1976).

The Arabic reading test was used for all four Faculties and was based on a passage from the introduction to a book of poetry by

Abu Al-Gasim Al-Shabi, which describes the radical intellectual and artistic temperament of the poet. (A copy of the test, the answers, and an English translation may be found in the Appendix). The language of the passage is modern Literary Arabic, and is intended to represent the sort of general Arabic reading a University-level student might do, regardless of Faculty. In terms of interest, of course, the passage favoured the Humanities students, although this had little effect on results, as will be seen.

Two dictation tests were prepared, one in English, one in Arabic. Each was a tape-recorded passage of about 100 words. Each passage was read three times: first at a normal speed, straight through; second, broken into phrases, with pauses for subjects to write; third, again in phrases, but with much shorter pauses for subjects to correct errors.

Dictation as a research tool is still comparatively new, although it has long been used as a classroom exercise, and not many details are known about the specific skills being tested in dictation. In fact, it was for this reason - the inability to isolate skills in dictation - that it was rejected out of hand be testing experts not so long ago (cf. Lado 1961:34; Rivers 1968:290-92). However, it is fairly certain that dictation is related to general language proficiency (Oller and Streiff 1975; Atai, Irvine and Oller 1974), and it seems likely that subjects employ a psychological strategy of 'analysis-by-synthesis' (cf.Neisser 1967) in responding to a dictation test. Further, the surface ability required, namely writing down rapidly what one hears, is one which may be said to be closely related to what students must do in a lecture situation. The English dictation passage was taken from the English as a Second Language Placement Examination of the University of California at Los Angeles, a measure used to assign foreign students at UCLA to remedial English classes (Oller and Streiff 1975). The passage suggests things a new student must do when he first comes to University. It was chosen because it had been tested before and because it seemed especially suitable for Preliminary-year students. The passage was read on tape by a Sudanese lecturer who had near-native English pronounciation. It was preceded by instructions to the students, by a different speaker. The instructions were also written on the students' answer papers. (The text of the test passage and the instructions may be found in the Appendix.)

The Arabic dictation passage was taken from an Egyptian newspaper account of the civil war in Lebanon (Al-Ahram, June 1976), and is concerned mainly with the weaponry used in the fighting. The passage was read on tape by a Sudanese lecturer, preceded by instructions in Arabic, by a different reader. The instructions were also written in Arabic on the students' answer papers. (The text of the test passage, the instructions, and an English translation may be found in the Appendix.)

PROCEDURE

Prior to the testing of the Preliminary-year students, 51 Fourth-year Arts students and 21 Fourth-year Science students (Chemistry) were given the English reading tests. This was done, first, to work out the testing procedures and check the instructions, and second, to get results to use as criteria when analysing the First-year performance. The Preliminary-year Arabic and English reading tests were administered on Friday, 16 July, in the Examination Hall of the University. The session lasted about one hour and twenty minutes. The 83 students were seated at desks, with the Science students on one side of the room, the Humanities students on the other. After a short introduction, in Arabic and English, explaining why the testing was being done and that the results would be confidential, the English reading test was distributed. The instructions on the cover were read aloud by an assistant while the students followed along silently. They did the practice test, and then were given about 40 minutes to complete the proper test. When time was called, the papers were collected and the Arabic tests distributed. Those students who were unable to read and write Arabic were told to put their names on their papers and leave them otherwise blank. Students were allowed about 30 minutes for the completion of the test. The papers were collected and the students were given an envelope containing 50 piastres and an invitation to return the following week for the dictation tests, with a promise of another 50 piastres.

The Arabic and English dictation tests were administered in the Examination Hall on 23 July. The 75 returnees were seated as before, scientists on one side, non-scientists on the other. They were given the answer sheet for the Arabic test first. Two small external speakers were connected to the tape-recorder and placed about five metres apart in front of the students, so all could hear reasonably well. The students were told what to expect, and then the instructions were played while they followed silently. They then heard the first reading of the passage, the machine was stopped and they were told to get ready to write. The passage was then played a second time and during the pauses, students wrote what they heard. The tape was stopped, and students were told to listen a third time and correct errors. When the third reading was finished, Arabic answer sheets were collected and the English ones distributed. Exactly the same procedure was followed on the English test as for the Arabic test, except that longer pauses were allowed for writing. When the tape was finished, papers were collected, students were given their 50 piastres and dismissed.

SCORING

The reading tests were scored by the standard cloze procedure method of requiring the exact replacement of the deleted items, one point for each. This procedure proved to be unsatisfactory with the Arabic reading tests so they were re-marked on an Entropy basis, the reasons for and an explanation of which are given below in the Discussion section of this chapter.

The dictation tests were scored by taking off one point (from a total of 50) for the ommission of a word, the inclusion of an extra word, or for a misspelling which created a new word (e.g. sight-site). Only one point per word was subtracted, and no negative scores were recorded (i.e. a student making 55 errors scored zero).

FINAL EXAMINATIONS

Finally, all these students sat the Final Examination in English Language in their respective Faculties during September 1976. The results of these examinations were obtained and used in the analysis of the tests in this study.

RESULTS

English Language Final Examinations

The results on the English Language Finals of the experimental groups were compared with the results of the whole group in each Faculty to discover how representative each experimental group might be of the general performance level in English. Table 2 shows the results of the comparisons, including test means, standard deviations (sd), and reliability coefficients (Rel.).

Table 2: Final Examinations in English

Faculty	N	Exper. Group Means	sd	Rel.	Whole Group Means
Arts	17	41.3%	7.7	.59	43.5%
Economics	19	53.3	8.0	.61	49.4
Law	20	50.7	7.9	.60	51.5
Science	27	56.6	14.8	.90	49.7

All experimental groups were about at the same level with their peers, except the Science group, who scored nearly 6% higher on the English Final than the rest of the Science students. The coefficients were calculated with the Kuder-Richardson Formula 21.

English Reading Test

Table 3 shows the test results for each Faculty and for the three Humanities Faculties on the English reading test.

Table 3: English Reading Test

Faculty	N	Mean (Total=50)	sd	Rel.
Arts	17	9.3	3.6	.42
Economics	19	13.9	6.1	.73
Law	20	14.4	4.2	.43
Humanities Total	56	12.7	5.3	.67
Science	27	21.7	6.3	.69

Note that the three Humanities groups scored very low, while the Science group scored much higher.

Fourth-year English Reading Test

Table 4 shows the results of the Arts and Science Fourth-year students on the English Reading test.

Table 4: Fourth-year English Reading Test

Faculty	N	Mean (Total=50)	sd	Rel.
Arts	51	12.2	5.4	.70
Science	21	21.4	5.6	.74

Note that there is very little difference between the First and Fourth year results.

English Dictation Test

Table 5 shows that the Arts and Science subjects scored low, compared with the Economics and Law subjects.

Table 5: English Dictation Test

Faculty	N	Mean (Total=50)	sd	Rel.
Arts	17	13.9	4.1	.42
Economics	16	32.1	6.6	.75
Law	17	30.8	11.3	.91
Science	25	19.6	12.9	.93
Total	75	23.8	14.3	.94

Arabic Reading Test

Table 6 shows two sets of results on the Arabic Reading test: the first based on the exact word replacement scoring method (standard cloze procedure), the second based on an Entropy scoring method.

Table 6: Arabic Reading Test

Faculty	N	Exact-word Mean (Total=50)	sd	Rel.	Entropy Mean (Total=50)	sd	Rel.
Arts	16	18.3	3.7	.15	39.1	5.1	.67
Economics	16	17.8	3.3	.04	38.3	4.4	.54
Law	15	18.1	3.3	.06	40.9	4.8	.68
Science	26	19.6	3.5	.03	40.2	5.4	.73
Total	73	18.2	3.5	.06	39.7	5.1	.69

Note that the exact-word method produced very low scores and very low reliability figures. The Entropy method increased the scores and produced acceptably high reliability coefficients. There is very little difference in scores between Faculties.

Arabic Dictation Test

Table 7 shows that all scores were reasonably high, except that the science group scored a bit lower than the other three groups.

Table 7: Arabic Dictation Test

Faculty	N	Mean (Total=50)	sd	Rel.
Arts	16	46.3	2.9	.59
Economics	11	44.9	4.3	.75
Law	13	46.6	1.9	.12
Science	24	41.1	7.3	.87
Total	64	44.0	5.7	.84

The low reliability coefficient in Law is due to the small amount of deviation from the mean, suggesting that the Law students found the test extremely easy.

Correlations between the Final English Examination and the English Reading and Dictation Tests

To see how the students' performance on the two English experimental measures compared with their performance on the Final Examination in English, Product-moment correlations were calculated. Table 8 shows the results of the correlations.

Table 8: Correlations between Final English Examinations and English Reading and Dictation

	Arts	Economics	Law	Science	Total
English Reading	.56*	.60**	$.43^{ns}$	.59**	.41**
English Dictation	.77**	$.13^{ns}$	.67**	.60**	.35**

*= $p < .05$
**= $p < .01$
ns= Not significant

Note that all correlations show moderately strong, significant relationships, except those between the Law Final and the Reading test, and between the Economics Final and the Dictation test.

Intercorrelations among the Five Experimental Measures

Table 9 shows the results of the intercorrelations among the five tests.

Table 9: Intercorrelations among the Five Experimental Measures

	HER	SER	ED	AR	AD
Humanities English Reading			.41**	-.02	-.17
Science English Reading			.57**	-.03	.29*
English Dictation	.41**	.57**		.25*	-.18
Arabic Reading	-.02	-.03	.25*		.87**
Arabic Dictation	-.17	.29*	-.18	.87**	

* = $p < .05$
** = $p < .01$

Note that relationships with languages are moderately high while those between languages are low.

Comparison of Non-Arabic Southern Students with the Rest in English

Table 10 shows the means and differences for the Southern students and the rest of the students on the English Reading and Dictation tests.

Table 10: Comparison of Southern Students with Rest in English

	English Reading			English Dictation		
	N	Mean	Diff.	N	Mean	Diff.
Non-Arabic	13	12.0		12	36.0	
Rest	43	12.7	-.7	63	21.6	+14.4**

** = $p < .01$

Note that there is very little difference in Reading, while there is a significant difference in Dictation ($t = 3.43$; $r_{pb} = .38$).

Comparison of Urban and Rural Science Students in Arabic Dictation

Table 11 shows that the urban Science students averaged 8.6 points higher than their rural counterparts in the Arabic Dictation test.

Table 11: Comparison of Urban and Rural Science Students in Arabic Dictation

	N	Mean	Diff.
Urban	14	46.7	
Rural	11	38.1	+8.6*

* = $p < .05$

The difference was significant ($t = 1.91$; $r_{pb} = .37$).

Comparison of Male and Female Science Students in English Reading

Table 12 shows that the Science males averaged 8.5 points higher than the females in Scientific reading.

Table 12: Comparison of Male and Female Science Students in English Reading

	N	Mean	Diff.
Male	20	23.8	
Female	7	15.3	+8.5**

** = $p < .01$

This difference was significant ($t = 4.25$; $r_{pb} = .65$).

DISCUSSION OF RESULTS

The first point to be noted from the testing is the generally low English reading scores. The average score of the three Humanities groups is only 25%, which means that most students were unable to comprehend most of what they read. It has been shown that cloze scores of below 35% indicate that the reading passage upon which the cloze test was based was too difficult for the subjects to understand (Bormuth 1967; Alexander 1968; Weichelman 1971; Hansen and Hesse 1972). Yet, the passage used here could not be said to be especially difficult nor outside the scope of the general type of reading the students might be asked to do. In sum, these results suggest a serious English reading problem involving fairly large numbers of students in the three Faculties.

The results of the Science English reading test are somewhat more encouraging, the average being about 44%. Since the Science reading test was probably more difficult than the Humanities test, this would suggest that most Science students, with help, would be able to cope with the reading they were asked to do, provided that too much reading wasn't required. It is clear that the majority of these students are still below a level where they could cope independently with most of their reading.

The result of the comparison of the Fourth-year students with the First-year was extremely surprising, for at least two reasons: First, it has been assumed that English standards have been dropping year-by-year due to the gradual switch-over from English to Arabic-medium secondary education. Thus, one would have expected English reading results to be better for older students. Second, one would expect students who had been in the University for three full years using English as a medium of instruction, to be better readers than a group of students who had been using it as a medium for only five months. A possible explanation may be found in the fact that to be a good reader in a second language, one must, if nothing else, practice reading. This would suggest that the Fourth-year students hadn't been doing very much reading in English during their time at University. As regards the failure to find any evidence of 'falling standards', it must be said that the notion of 'standards' is a difficult one to assess. Certainly, more research on this problem is needed.

The results of the English dictation test indicate that while the Economics and Law students were reasonably well able to write down what they heard on the tape, the Arts and Science students were less well able to do so. This is particularly surprising for the Science students, who are generally thought to be at least as able in English as their peers in other Faculties. However, it was suggested by members of staff in the Scientific English section of the English Language Servicing Unit that the Mathematics students in Science were of a generally lower standard than the Biology group. Therefore, the averages of the Mathematics and Biology sub-groups on the dictation test were calculated with the following results:

	N	Average	Difference
Mathematics	17	15.4	
Biology	10	29.1	13.7**

** = $p < .01$

A point-biserial correlation showed a fairly strong relationship between membership in a sub-group and performance on the test ($r_{pb} = 50$). Thus, the poor performance of the Science students on the English dictation test is almost certainly due to the weakness of the Mathematics students, who, due to an accident of scheduling, make up the majority of Science students. (Note: the averages of the two sub-groups on the English reading test were calculated as well, but no significant difference was found). The problem remains, of course, of the exceptionally low performance of the Mathematics group (though the difference between them and their biologist colleagues is probably not so great as these results suggest), and this should be investigated more fully.

As regards the Arts students, the result of this dictation test, taken together with their poor reading performance, suggests a fairly serious deficiency in English. Steps should be taken to pin-point the nature of the deficiency and its causes, and to discover what might be done to remedy the situation.

The Arabic reading test was first marked in the same way as the English reading test, allowing one point for the exact replacement of the deleted word. This proved to be unsatisfactory, for the scores were extremely and uniformly low. This was surprising since a cloze score for native-speakers of the language being tested should be substantially higher than the scores of the same group on a test in a second language. Another indication that all was not well on the Arabic reading test came from the calculation of the reliability coefficients, which were extremely low. This suggests that the exact word requirement was not suitable for the Arabic test, which in turn suggests that there is a fundamental difference between Arabic and English regarding their adaptability to standard cloze procedure. The present case is the first (as far as is known) of a cloze test in Arabic, and it is, therefore, impossible to compare these results with any other data at the present time. The exact reasons for the low scores and reliability are difficult to know. It may be suggested that the numbers of suitable alternative answers for an Arabic cloze item is high, and therefore the probability of selecting the one deleted is lower than in English. Further experimentation is necessary to discover the answer.

As a solution to the immediate problem of low test reliability however, another scoring method, known as clozentropy, was applied to the data. In this system, any response given by at least two subjects was counted as correct. The results were much higher scores, and perhaps more importantly, an acceptable set of reliability figures. The result is a measure of linguistic homogeneity. It should be noted that in the totalling of the scores, the results of the Southern students were not included for either Arabic test - most Southern students did not attempt them, and many of those who did scored poorly. Some of the Southerners did very well, of course, being native- or near-native-speakers of Arabic, but for the sake of consistency, their results were not included in the analysis.

Arabic being the mother-tongue of most of the students and used every day, both inside and outside the University, the students, as expected, did very well on the re-scored Arabic reading test (now a measure of shared reading habits) and on the dictation test. The only break in the pattern was the slightly lower performance of the Science students on the Dictation test. In this regard, it should be pointed out that there was extreme variation in the Science scores (sd = 7.3) indicating a wider range of ability than was the case in the other Faculties. The lower scorers were generally students who came either from areas far from Central Sudan (such as Darfur) or from rural areas, where the Arabic normally used is different from that of Khartoum. In fact, there was a significant difference among Science students between those from urgan and those from rural ones (Table 11). The implication of this finding, which is almost certainly due to sampling error and not peculiar to Science alone, will be discussed later.

In general, the results of the analysis of the English Language final examinations in each Faculty suggest that the experimental groups were representative of the general standard in their Faculties and that findings based on their performance can be applied to the rest of the students in the Faculties. An apparent exception is in the comparison of the results of the Science experimental group with those of their fellows. The whole group averaged about 49.7% on their English finals (the Mathematics and Biology students sat different examinations; the figure given here is a composite score), while the experimental group was slightly above average in English ability. In fact, a test of significance performed on the difference between the two means showed that there was a significant difference ($t = 2.26$; $p < .05$), but a point-biserial correlation calculated on the data showed that the advantage obtained by the experimental group, while statistically significant, was not very great ($r_{pb} = .02$). Thus, although the experimental group were somewhat above average in performance on the scientific English examination, the difference was small enough to ignore in practice, and conclusions drawn from the performance of the experimental group can, with caution, be extended to the whole group.

The correlations between the two English tests and the final examinations are moderately strong and about what would be expected in a comparison of a global test of proficiency with an examination containing a mixture of global and discrete point components, objective and subjective sections. Breaking the pattern were the Economics group on the English Dictation test - the correlation coefficient was .13, which indicates no significant relationship at all, and the Law students on the English Reading test - the correlation was .43 which is a bit weaker than the rest. The reasons for these results cannot be suggested without a detailed analysis of the two final examinations.

The intercorrelations among the four experimental tests were generally low, suggesting that they were testing somewhat different skills, as they were intended to do. Somewhat worrying, however, is the fact that in other studies, cloze reading tests and dictation tests, such as those used here, give fairly high correlation figures - .70 to .85 (e.g. Oller 1971; Oller and Conrad 1971). In the present study, the correlation between the Humanities and Science English cloze and the dictation is only .41 and .57 respectively. On the other hand, the tests correlate equally well with the final English examinations. On the whole, therefore, the conclusion is that the tests are testing somewhat different things. A clue to the low Humanities correlation may be found in the rather low variance on the English Reading test, which indicates that the test was difficult for most of the subjects. It may be that a slightly easier test would produce more amenable results.

In order to look at the effect of some variables on the test results, the data was recast three different ways. The following comparisons were made:

Southern Sudan v the Rest of Sudan

Urban v Rural

Male v Female

It was supposed that the Southern students would be better in English than the rest of the students, since they come from an area where English is more generally used as a medium and because many of them went to English-medium secondary schools. The Urban students were expected to do better in English than the Rural ones since English is used more in the urban context, and in Arabic since the Arabic used in an urban setting would be more like that used in the test than would Arabic from rural areas. Finally, it was thought the males would perform better on the English and Arabic tests since education for males is possibly generally better than that for females at secondary level.

Looking first at the 'North-South' comparison, very little difference was found in English reading, but a great difference in English dictation. This 14-point difference was statistically significant ($t = 3.43$; $p < .01$; $r_{pb} = .38$). This is a very interesting finding, for it defines the 'advantage' the Southern students were thought to have in the English-medium University: they are a bit better at comprehending spoken English, presumably because it is better learned in its natural setting outside the language classroom, but they are no better at reading, which is best learned in school. Southern students, it may be supposed, heard more spoken English, both in school and outside the academic environment, than did other students in Arabic-medium schools. But reading ability is not so much influenced by outside environment and there is little difference in the performance of the two groups. It is perhaps worth pointing out that while none of the North-South differences within Faculties reached statistical significance, this is probably due to the small numbers of students involved, and if testing were done with larger numbers, the differences would be more conclusive.

On the Urban-Rural dichotomy, only one significant difference in scores was found - that already mentioned among the Science students on the Arabic dictation test. There were differences in the expected direction between urban and rural students, both in the total scores and within Faculties, and some of these were substantial (for example, a five-point difference on the English Dictation total, and nine-point difference in the Faculty of Law on the same test), but either they were not large enough (as in the Dictation total), or too few students were tested to be sure they were two distinct populations (as in the Law Faculty). It is probably also the case that the criterion for the urban-rural distinction, based on the students' own assessment at the time of their application for admission, is not clear-cut enough. The Science result suggests that there are real differences between rural and urban students, and more study is indicated, especially in the area of spoken Arabic.

Similarly, only one significant difference was found between males and females on any of the measures and this was on the Science reading test: the men scores 8.5 points higher than the women ($t = 4.25$; $p < .01$; $r_{pb} = .65$). This suggests that the females were at rather a serious disadvantage at reading scientific English The fact that there was very little difference on this variable among Humanities students indicates that the difficulty lies specifically in Scientific reading rather than in more general reading ability (although on the English Dictation test an 8.7-point deficit for the Science females only just failed to achieve significance and on both Arabic tests the females scored about 6.5 points lower). It is true that this difference was found on the basis of a very small number of females, but the difference is large enough and the relationship between sex and Scientific reading ability strong enough to warrant further research. Further, it is likely that the entry requirements in Science are somewhat lower for women than for men.

CHAPTER FIVE

CONTRIBUTORS TO ACADEMIC SUCCESS

INTRODUCTION

Academic success is a difficult concept to measure. The usual definition of academic success is performance in examinations, or more simply, grade averages. At the University of Khartoum, the Preliminary-year students sat final examinations in July 1976, and it is performance on these examinations, or some of them, as described below, that has been used as the criteria of academic success in this study. Before proceeding to the analysis itself, however, it is necessary to discuss some of the theoretical problems connected with such a study.

Final examinations in the University are designed to be achievement tests - that is measures of how well students have learned what they have been taught during the year. In this, the examinations are often related to a syllabus and serve as a check that students have learned all important parts of the course. Usually, too, final examinations are used to check on the students' ability to express themselves in a scholarly way, to organize data logically, to observe academic conventions peculiar to each discipline - all important parts of university education. However, this means that the final examinations and judgements of performance on them (i.e. marking) are very complex, and a great many skills and abilities are being measured at once. It follows, then, that any attempt either to predict performance on final examinations, or to identify abilities that contribute to examination performance will be a very difficult job indeed.

As has been alluded to above, no examination is ever a pure test of whatever it purports to measure - even when it is intended to measure not only knowledge of a particular discipline but also other legitimate concerns such as presentation and organization of data, expression, etc., there are also being measured such psychological qualities as short-term memory (in following instructions), long-term memory (in calling up 'chunks' of memorized material), and ability to overcome anxiety (caused by the examination situation itself), to name but a few. It must surely be the case that the ratio of 'academic' information to 'psychological' information being measured in examinations varies from student to student (for different individuals confronting the same examination will respond to it differently depending upon their psychological proclivities) and from examination to examination (since one examination may be more psychologically 'affective' than another). But these factors are as yet largely unknown to testers and thus make any detailed analysis of examination results suspect. Nonetheless, it is necessary, even in our ignorance, to make use of the results in the wisest way we can.

In looking at some of the contributors to academic success, we will be concerned with two primary aspects: the students' performance on their school leaving examination in their chosen field of study, and their language proficiency. Many of the same cautions mentioned above apply to these variables as well, for all these measures - School Certificate English and Arabic, the 'Arts' and 'Science' papers, the English and Arabic Reading and Listening tests, the University language final examinations, the Study Habits, Motivation and Social Adjustment Scales - are all subject to varying psychological influences. The relation of language proficiency to academic performance is further complicated by the likely presence of a 'threshold' of proficiency required, necessary, but not sufficient for success in studies (e.g. Ingram 1970; Davies et al 1975).

Further, in the question of contributing factors in academic success, one must distinguish between measures of achievement and ones of proficiency. An achievement test is related to what has been taught in a course and is a measure of students' ability to learn a specific body of information or concepts (for example, the Sudan School Certificate Examination or a University final examination in Chemistry). A language proficiency test is usually concerned with how much a student knows of the language he needs for a particular task, such as university studies. Related to this distinction between achievement and proficiency testing is a further distinction between the testing of knowledge about something - what I have referred to above as 'content' tests - and the testing of ability to use information or concepts - what many modern language tests and examinations try to measure. We might also distinguish between 'subjective' and 'objective' tests - those which require the marker to make up his own mind about the 'correctness' of an answer - such as in an essay - and those which allow only a single correct response - such as a multiple-choice test. The point is, that when these distinctions are confused, as they often are, the interpretation of the relationship between tests becomes very complicated. Thus, when 'academic success' is measured by a series of tests, which are mostly achievement tests (but probably contain proficiency components, perhaps indirectly) and are combinations of subjective and objective components, then attempting to predict this academic success by measures which are neither purely objective nor purely proficiency, becomes a very difficult job indeed. With all these cautions in mind, the following analysis was carried out.

In order to ascertain the effect on academic performance in the University of 13 other variables, described below, an analysis was carried out with the assistance of the University Computer Centre. A correlational study was done to determine the individual effect on university performance of variables connected with the Sudan School Certificate, interviews conducted with the subjects, secondary school attended, Arabic and English reading and listening tests, and University English final examinations. The combined effect of certain of the variables was studied by means of a regression analysis to determine the importance of language proficiency on university performance, and the relative importance of reading and listening skills. Below is a description of the method of analysis, including a discussion of each of the variables and of the procedure. This is followed by a statistical summary of results, a discussion of the results, and a summary of conclusions and suggestions for further research.

THE DATA

Sudan School Certificate (SSC)

The students in this sample sat for the Sudan School Certificate Examination in 1975 in their respective schools. This examination is rather typical of its kind, both reflecting and influencing the secondary school syllabus. It is, in this context, primarily an achievement measure made up of several parts, each representing a school subject. The Examination is also used, of course, as a proficiency measure to determine those candidates who are of high enough standard for admission to higher education. Each higher institution in the Sudan receives a listing of the candidates, in the Arts and the Sciences streams, giving the subject scores and the total score for each candidate. It is from these lists that the institutions select and place new students from among the applicants.

The University operates a rather complex system of admission, a central feature of which is known as the 'boxing number', roughly the lowest SSC pass mark each faculty is willing to accept. This boxing number changes each year from faculty to faculty, related mainly to the number of applicants. A further complication is that not only is the boxing number, based on the total SSC score, taken into account in selection, but also performance on various subject examinations, the criteria for which vary from faculty to faculty (these criteria are discussed later in this Chapter). In order to assess fully the relationship between the SSC results and University performance, the exact criteria for selection in each faculty would have to be taken into account, and if possible, the data components weighted in accordance with their relative importance in the faculty. In this introductory study, however, a direct comparison was made between various parts of the SSC Examination and University performance, as measured by Preliminary-year final examinations, to find out how much of the variance on the finals had been predicted by the SSC. The table below shows the performance of the students in Arabic, English, their 'Arts' subject totals (made up of Islamic Studies, Geography, History, Mathematics and Science) or 'Science' subject totals (made up of Mathematics, Biology, Physics and Chemistry), and SSC Total Score:

Table 1: Sudan School Certificate Results by Faculty

SSC Subject	University Faculty				
	Arts	Economics	Law	Humanities Total	Science
Arabic	68.8%	69.9%	73.7%	70.8%	70.9%
sd	11.4	10.7	8.6	12.4	9.0
English	49.3%	62.6%	63.8%	58.8%	54.0%
sd	13.3	10.6	7.8	10.3	12.8
Arts/Science Subjects	65.1%	67.4%	63.7%	65.3%	75.2%
sd	11.6	7.8	8.2	9.3	7.6
Total	60.7%	65.0%	63.1%	63.0%	74.8%

Note first that all four faculties are approximately equal in Arabic, though Law is a bit above the average (the figures exclude eight non-Arabic speaking candidates, who did Special Arabic). In English, the Arts candidates are considerably below the other groups ($t = 4.20$; $p < .01$), while on the Arts subjects, the Economics students were superior to the Arts and Law students ($t = 3.48$; $p < .01$). On total SSC performance, the three 'Arts' groups are approximately equal, but below the Science stream. These results suggest that the major difference in the students from the three faculties lies not so much in over-all performance on the SSC, but in English. The SSC is given separately to Arts and Science streams and these two examinations will be described.

Arts Stream. School pupils in the Arts Stream sat seven subject examinations for the SSC: Arabic, English, Islamic Studies, Geography, History, Mathematics, and Science. A small number of them might also have sat additional examinations in such subjects as French or Art. Students in the Arts Stream may apply only to the so-called 'Arts' faculties of the University, which in the present study include Arts, Economics, and Law (hereafter called 'Humanities') while students in the Science Stream may apply for admission to any faculty. Of the 56 students in the Humanities faculties, all but two came from the Arts Stream - one in Economics and one in Law had come from the Science Stream.

Science Stream. The Science candidates sat eight SSC subject examinations: Arabic, English, Islamic Studies, Geography, Mathematics and Supplementary Mathematics, Chemistry, and Biology for the Biology group, Physics for the Mathematics group. Most secondary schools in the Sudan are Arabic-medium, and the SSC in in Arabic, with the exception of the English Examination, of course.

Secondary School Attended. The school of each subject was entered into the analysis as a percentage of the candidates entered passing the SSC, in both the Science and Arts streams. The percentages vary from 96% to 28%.

Motivation (M), Study Behaviour (SB), and Social Adjustment (SA)

The details of these quantified scales from the Interview data are provided in Chapter Six.

School Rank

Data provided by the Sudan Ministry of Education showed what proportion of pupils sitting the 1975 SSC examination in each school passed the examination. These percentages were entered for each student in the sample. For example, in Kadugli Secondary School 95% of the candidates passed in the Arts Stream, and this figure was entered for all former Kadugli pupils in the Humanities sample. Separate figures were used for the Arts and Science Streams, and for boys' and girls' schools, where available. The aim was to discover how important the secondary school a pupil came from is in success in the university - the primary criterion for determining 'good' or 'poor' school being the number of SSC passes the school produced.

Language Proficiency Tests (AR, ER, AD, ED)

These tests in Arabic and English Reading and Listening are described in Chapter Four.

English Language Final Examination (EF)

These examinations differed greatly from faculty to faculty though in Science, Economics, and Law they were prepared by members of the English Language Servicing Unit staff. The Arts examination was prepared by the Department of English. There were in fact two Science Examinations - one for the Biology students (the majority) and one for the Mathematics students, and each was related to the content of the discipline. Indeed, all the English Language finals were 'ESP' (English for Special Purposes) examinations attempting to test the sort of language skills needed by the students for whom they were intended. The Arts examination was perhaps the most 'general' of them.

The Subject Finals (SF)

These comprised the measure of 'academic success' and were entered into the analysis as composite standard scores representing each student's performance in all of his 'content' subjects as described below. In the Faculty of Arts, students did two 'content' subjects in addition to English and Arabic; in Economics, they did five, in Law, four, and in Science, four main subjects. Arabic was not a subject in the latter three faculties. In Arts and Science, only letter grades were available on the final examination, while in Economics and Law, percentage grades were provided. Consequently, in the former two faculties, the total score on the 'content' examinations for each candidate were calculated by assigning points to the letter grades, four for an 'A' to zero for an 'F'. Thus, the maximum possible in Arts was eight points, while the maximum in Science was 16. In Economics and Law, the percentages were summed to get a total score for each candidate. In all Faculties, the totals were converted to Standard Scores (z).

Table 2: 'Content' Subjects in Each Faculty

Arts	Economics	Law	Science	
			Biology	Maths
Archaeology (8)	Mathematics	Constitutional	Biology	Chemistry
French (7)	Accounting	Introductory	Physics	Physics
Geography (3)	Social Science	Shari'a	Botany	Maths 1
History (9)	Economics	Criminal Law and Procedure	Zoology	Maths 2
Philosophy (5)	History			
Russian (1)				

Note: In brackets are the numbers of students doing each Arts subject.

PROCEDURE

The data was processed using a multiple regression programme at the University of Khartoum Computer Centre. The programme provided a correlation matrix for all 14 variables and stepped regressions of the effect stated independent variables had upon a dependent variable (in this case, University examination performance). The varinbles which were examined in this way were:

Sudan School Certificate Results

- English (SCE)
- Arabic (SCA)
- Arts/Science Subject Total (SCS)
- Examination Total (SCT)

Interview Quantative Scores

- Motivation (M)
- Study Behaviour (SB)
- Social Adjustment (SA)

School Quality Rank (SR)

Language Proficiency

- Arabic Reading (AR)
- English Reading (ER)
- Arabic Dictation (AD)
- English Dictation (ED)

University Preliminary-year Final Examination

- English Language (EF)
- Subject Finals (SF)

These correlations and regressions were performed 1) for the whole sample, 2) for the 'Humanities' faculties (Arts, Economics, Law), and 3) for Science, 4) Arts, 5) Economics, and 6) Law separately. The results will be reported on in that order.

RESULTS

The Whole Sample

Table 3 is the correlation matrix for the whole sample and shows the interrelations of all 14 variables. Note that there are relatively few statistically significant relationships, but that they form interesting patterns. For example, the School Certificate results form an intercorrelated set, not surprisingly; the School Certificate English examination correlated significantly with twp of the other English measures; each of the School Certificate scores correlates with university performance; school rank

Table 3: Correlation Matrix for Whole Sample (N = 76)

	SCE	SCA	SCS	SCT	M	SB	SA	SR	AR	ER	AD	ED	EF	SF
SF	433**	269*	286*	277*	019	-007	-169	052	234*	255*	250*	290*	422**	-
EF	396**	028	162	138	076	-009	-145	-132	-030	409**	-047	349**	-	
ED	634**	119	-079	-043	114	166	091	-143	-230	245*	-179	-		
AD	-135	-056	192	194	-076	-041	-001	682**	872**	015	-			
ER	224	048	345**	535**	-168	-085	-135	-004	059	-				
AR	-201	-093	246**	225	002	-082	-015	627**	-					
SR	-154	-137	314**	226	-103	-179	064	-						
SA	013	021	-123	-112	102	215	-							
SB	174	134	-042	-058	305**	-								
M	057	-082	-050	-225	-									
SCT	316**	472**	875**	- -										
SCS	339**	434**	-											
SCA	471**	-												
SCE	-													

* $p < .05$

** $p < .01$

is correlated with Arabic Reading and Dictation; all seven language measures (SCE, SCA, AR, ER, AD, ED, EF) are significantly correlated with University performance. It should be noted also that none of the interview scales (Motivation, Study Behaviour or Social Adjustment) correlates significantly with any other measure.

Table 4 shows the results of the regression of some of the independent variables (I.V.) with university performance, giving the correlation coefficient (r) cumulatively for each step of the regression and the percent of variance (%) held in common between the independent variables and the dependent variable. Thus the last figure in each regression shows the combined power of the measures to 'predict' university performance. Note that, in Regression I, School Certificate English alone is nearly as good a 'predictor' of university performance (18.7%) as the whole School Certificate Examination (21.0%). Regression II and III suggest the total effect of English proficiency in university examination performance - about 21%. Regression IV and V suggest the relative importance of Reading and Listening ability in university performance - 11% and 18% respectively.

The Humanities Faculties

Table 5 shows the correlation matrix for the 14 variables within the Faculties of Arts, Economics, and Law. The major differences between the correlation here and those of the whole sample involve the importance of English to university performance. Note that neither the School Certificate English, English Reading nor English Dictation show significant correlations with university performance. The School Certificate content subjects and Arabic Reading, however, do show significant correlations. No regression analyses were carried out with the Humanities sub-group.

Faculty of Science

Table 6 shows the correlation matrix for the Science students in the sample. Note first that the correlation of the School Certificate total (SCT) with university performance is in large part due to the very high correlation of School Certificate English (.795). All three of the other English measures (ER, ED, EF) show high correlation with university performance as well. Table 7 shows the results of some regression studies of the importance of English proficiency (I), Reading Ability (II), and Listening Ability (III) in the Science sample.

Table 4: Regression Analysis for the Whole Sample

Regression	I. School Certificate			II. English 1			III. English 2			IV. Reading			V. Listening		
	I.V.	r	%	I.V.	r	%	I.V.	r	%	I.V.	r	%	I.V.	r	%
Step 1	SCE	.43	18.7	ER	.25	6.5	ER	.25	6.5	ER	.25	6.5	AD	.25	6.3
2	SCB	.46	20.9	ED	.35	12.0	ED	.35	12.0	AR	.34	11.3	ED	.42	17.9
3	SCA	.46	21.0	SCE	.46	21.4	EF	.44	20.6						

Table 5: Correlation Matrix for Humanities (N = 51)

	SCE	SCA	SCS	SCT	M	SB	SA	SR	AR	ER	AD	ED	EF	SF
SF	240	185	353**	401**	033	002	-166	251	321*	235	264	107	303*	-
EF	226	-001	106	145	030	023	-188	-112	017	456**	-123	236	-	
ED	534**	011	-056	024	188	169	204	-109	-237	405**	-292*	-		
AD	-284	-157	187	154	031	-045	-014	723**	891**	-172	-			
ER	297*	063	000	222	078	182	019	-268	-015	-				
AR	-258	-204	258	192	156	-031	006	669**	-					
SR	-133	-131	359*	212	076	-109	079	-						
SA	074	020	121	176	151	293*	-							
SB	208	126	090	147	294*	-								
M	052	033	110	085	-									
SCT	[illegible]88**	632**	880**	-										
SCS	[illegible]1**	551**	-											
SCA	479**	-												
SCE	-													

* p < .05

** p < .01

Table 6: Correlation Matrix for Science (N = 25)

	SCR	SCA	SCS	SCT	M	SB	SA	SR	AR	ER	AD	ED	EF	SF
SF	795**	467*	361	513	-069	-064	-223	-367	040	527**	251	651**	642**	-
EF	734**	095	385	335	180	-075	-087	-184	-160	587**	176	601	-	
ED	800**	401**	242	496*	-306	016	-258	-107	-130	570**	240	-		
AD	363	305	137	354	-328	040	108	533**	785**	290	-			
ER	583**	037	303	303	039	-092	-040	118	-031	-				
AR	022	271	048	176	-249	-116	035	446*	-					
SR	-112	-170	-030	-089	-343	-221	181	-						
SA	-213	032	-333	-225	-240	-048	-							
SB	-001	174	080	181	119	-								
M	-144	-383	275	-077	-									
SCT	679**	652**	783**	-										
SCS	511**	302	-											
SCA	488**	-												
SCR	-													

* $p < .05$

** $p < .01$

Table 8: Correlation Matrix for Arts (N = 16)

	SCE	SCA	SCS	SCT	M	SB	SA	SR	AR	ER	AS	ED	EF	SF
SF	612*	536*	553*	655**	-209	133	089	294	120	570*	278	292	337	-
EF	460	094	411	449	277	258	115	474	376	558*	-085	257	-	
ED	439	283	311	282	384	568*	379	422	361	432	451	-		
AD	303	306	312	279	038	682**	067	-037	700	246	-			
ER	324	208	112	261	059	341	-082	009	295	-				
AR	303	024	326	260	291	550*	070	052	-					
SR	466	382	659**	606*	106	060	317	-						
SA	133	-224	165	067	013	257	-							
SB	455	220	276	315	502	-								
M	210	175	113	164	-									
SCT	895**	728**	958**	-										
SCS	856**	643**	-											
SCA	645**	-												
SCE	-													

* $p < .05$

** $p < .01$

Table 10: Correlation Matrix for Economics (N = 19)

	SCE	SCA	SCS	SCT	M	SB	SA	SR	AR	ER	AD	ED	EF	SF
SF	-080	035	-014	174	140	-013	-427	-078	128	274	103	-010	591**	-
EF	-026	072	092	100	-075	045	-375	-409	-041	599**	-209	134	-	
ED	-148	-361	-613**	-547**	032	042	-019	-073	-323	119	-259	-		
AD	-210	-117	088	286	-444	-245	272	847**	872**	-243	-			
ER	-068	054	086	255	-028	-067	034	-338	-008	-				
AR	-336	-067	065	313	-376	-312	277	603	-					
SR	-201	-176	-016	052	-442	-194	288	-						
SA	-161	-033	112	229	170	388	-							
SB	108	047	119	115	138	-								
M	-037	-033	-087	-075	-									
SCT	510*	602**	873**	-										
SCS	643**	695**	-											
SCA	605**	-												
SCE	-													

* p < .05

** p < .01

Table 12: **Correlation Matrix for Law (N = 16)**

	SCE	SCA	SCS	SCT	M	SB	SA	SR	AR	ER	AD	ED	EF	SF
SF	079	-207	470	383	332	-238	-120	669**	738**	-122	660**	-082	-107	-
EF	676**	-219	-245	-153	-140	-331	-132	-111	-079	428	-154	672**	-	
ED	654**	-412	-420	-405	-061	-357	-004	[illegible]	-176	186	-195	-		
AD	-234	-309	452	315	637**	041	-200	678**	944**	213	-			
ER	191	-315	-240	-183	182	467	[illegible]	-093	235	-				
AR	-202	-391	480	340	[illegible]	051	-136	748**	-					
SR	-088	-275	643**	497*	303	-074	-113	-						
SA	033	348	047	074	267	238	-							
SB	-192	-021	-182	-171	139	-								
M	-353	-155	314	170	-									
SCT	-048	566*	968**	-										
SCS	-167	426	-											
SCA	-111	-												
SCE	-													

* p < .05

** p < .01

Table 7: Regression Analysis for Science

Regression	I. English			II. Reading			III. Listening		
	I.V.	r	%	I.V.	r	%	I.V.	r	%
Step 1	ER	.53	27.8	AR	.04	. .17	AD	.25	6.3
2	ED	.68	46.0	ER	.53	28.1	ED	.66	43.3
3	SCE	.80	63.9						
4	EF	.80	64.3						

Note that English proficiency (Regression I) plays a relatively large part in university performance - 64.3%, and that Listening (Regression III) is relatively more important than Reading (Regression II).

Faculty of Arts

Table 8 is the correlation matrix for the Arts sample. Note that, as in Science, School Certificate English is important in predicting university performance, although all these components of the School Certificate Examination (SCE, SCA, SCS) carry comparable weight. Note, too, that only English Reading of the other language tests show a significant correlation with university performance. Strangely, the Study Behaviour Scale (SB) shows significant correlations with Arabic (AR, AD) and English (ED).

Table 9 shows the results of the regression analysis for Arts.

Table 9: Regression Analysis for Arts

Regression	I. English			II. Reading			III. Listening		
	I.V.	r	%	I.V.	r	%	I.V.	r	%
Step 1	ER	.57	32.5	AR	.12	1.6	AD	.28	7.7
2	ED	.57	32.8	ER	.57	32.8	ED	.33	11.2
3	SCE	.74	54.2						
4	EF	.75	56.8						

Note that English is fairly important, but that, unlike Science, Reading is relatively more important than Listening ability.

Faculty of Economics

Table 10 is the correlation matrix for the Economics sample. Note the very few significant correlations in this sample. There is only one variable which shows a significant relationship with university performance: the University English final examination (EF). Otherwise, only the School Certificate components intercorrelate, as do English Reading and English Dictation. Note the significant negative correlation of both School Certificate Subjects and Total with English Dictation, suggesting that those students who did well in School Certificate were relatively poor in English listening.

Table 11 shows the regression results for Economics.

Table 11: Regression Analysis for Economics

Regression	I. English			II. Reading			III. Listening		
	I.V.	r	%	I.V.	r	%	I.V.	r	%
Step 1	ER	.27	7.5	AR	.13	1.7	AD	.10	1.1
2	ED	.28	7.7	ER	.30	9.2	ED	.10	1.1
3	SCE	.29	8.2						
4	EF	.61	37.3						

Note that over one-third of the variance in university examination is held in common with English Proficiency, though this is less than either Arts or Science. Further, though the Arts pattern of reading being more important than listening is followed, the Economics proportions of variance are very small.

Faculty of Law

Table 12 is the correlation matrix for Law. Note that the intercorrelations of the School Certificate components are not comparable to those shown by the other faculty groups - the School Certificate English paper in particular shows very low (indeed,nnegative) correlations with the other three sets of scores. It does, however, correlate significantly with English Dictation and the English Final Examination. Neither English Reading, English Dictation, nor the English Final shows a significant correlation with university performance, but in looking at the School Rank, and Arabic Reading and Dictation, an interesting, if puzzling pattern emerges. School Rank (as in other matrices) is moderately highly correlated with Arabic Reading and

Dictation, and all these variables are significantly correlated with university performance.

Table 13 shows the regression analyses for Law.

Table 13: Regression Analysis for Law

Regression	I. English			II. Reading			III. Listening		
	I.V.	r	%	I.V.	r	%	I.V.	r	%
Step 1	ER	.12	1.5	AR	.74	54.4	AD	.66	43.6
2	ED	.14	1.9	ER	.81	63.7	ED	.66	43.8
3	SCE	.23	5.4						
4	EF	.26	6.7						

Note that English proficiency seems to play a fairly minor part in university performance, and that, while, like the other two Humanities groups, reading is more important than listening, most of the variance comes from the Arabic component of the two abilities.

DISCUSSION

The results of this analysis provide interesting data in several areas. Looking first at the Sudan School Certificate data, it is clear that there is a fair amount of carry-over in ability from one subject to the next - a good student in one subject is likely to be good in the others. This suggests that there is a common thread - possibly memorization ability - running through the components of the SSC. It is also clear that School Certificate examination performance is related to university performance, though not terribly strongly: the total SSC score shares only about 8% of the variance with university performance - SSC English is much more important to university work, sharing about 19% of the variance. The breakdown by faculties suggests that the apparent importance of the School Certificate results, and of the English component, varies from faculty to faculty. For example, the Arts matrix suggests that the Sudan School Certificate as a whole is very well geared to the requirements of the Arts students - over 40% of the variance in university Arts examinations is 'predicted' by the School Certificate results. In the Science Faculty, the total SSC result shares only 26% of the university performance variance - thus, the Science stream examination is not quite as good a predictor of Science performance in the university as the 'Arts' stream examination is of Arts performance. In both Law and Economics, the SSC results show low, insignificant correlation with university performance. It would certainly be unwise to draw firm conclusions about university admissions policies from these findings - much more work is needed before this complex problem is clarified. Some additional data is supplied by the regression analyses. These show, first, that for the four-faculty sample, the School Certificate English result predicts university performance nearly as well as the whole School Certificate. Obviously, English proficiency is a very important factor in university work. This is even more obvious when one looks at the regressions for English Proficiency which show that about 21% of the variance in university performance is held in common with English Proficiency. There are faculty variations here: for example, English proficiency shows a higher correlation in Arts and Science - 56.8% and 64.3 respectively - than in Economics and Law - 37.3% and 6.7%. This does not suggest that English proficiency is more important in Arts and Science than in Economics and Law but that, while it is important in all faculties (as the whole sample results show), it is emphasized more in the selection of Economics and Law students who therefore show smaller amounts of variance in English proficiency and, consequently, smaller correlations with university performance. Two pieces of data help prove this hypothesis - admissions requirements for the four faculties, and the SSC English results for the students in each faculty sample. We will examine this data in some detail.

The minimum entrance requirements for the University of Khartoum (Admissions Office 1974) are possession of a Sudan School Certificate with at least five credits and at least a pass in English. A pass in English is 30%. A credit is a standard of excellence applied by the University to the SSC results. Some faculties have additional and/or more stringent requirements, however. The Faculty of Economics and Social Studies, for example, requires a credit in Elementary Mathematics; Law requires credits in English and Arabic. The Faculty of Science, on the other hand, admits students with a failure in SSC English, provided they are able to pass an equivalency examination set by the University. This is to allow for students whose science performance is of a high standard and whose English is deficient. Each faculty also gives preference to students whose performance in three of a specified group of subjects is superior. These subjects include English, Arabic, Geography, History, Biology, Mathematics, and Physics except in Science where only the Science subjects are given preference. Another factor that is taken into account in selection is the students' own preference. Thus, the more popular faculties - Science and Economics - tend to get better students than the least popular one - Arts. The results of these various admissions policies is that the students who are best in English and Arabic tend to end up in Law (which requires a credit in these and gives preference to high scorers); the students in Economics tend to be good in English since this is a popular faculty and good scores in English and Mathematics are given preference in selection; students in Science tend to be good students in general (since they go through a rigorous selection process which is Science-oriented) but not necessarily good in English since they need only a pass (and may in fact have failed SSC English); the Arts students tend to be of lower standard generally.

Turning to the SSC results (shown in Table 1 of this chapter) for each faculty, we see that Law and Economics have the best English results - more than a standard deviation above Arts - while Science is midway between Arts and the other two. It is of interest to note, too, that in Arabic, Law is superior to the others, owing to its requirement of a credit on the SSC, while in the Arts subjects, Economics is followed by Law and Arts, and Science has a very high average in the Science subjects, this being the principal selection criterion in that faculty. Finally, in order of overall excellence, the ranking is Science, Economics, Law, and Arts. To explain the low correlation of English with Economics and Law performance we need only compare the variance (sd^2) for these faculties with those of the other two. Table 1 shows that in Arts and Science the variance is quite high: 176.9 and 163, respectively. In Economics and Law, however, it is considerably lower: 122.4 and 60.8. This accounts for the low correlation for English with performance in these two faculties. The obvious conclusion is that English should be given much more weight than is now the case in the selection of students in Arts and Science. As long as English remains the medium of instruction in the University, English should be one of the main criteria for selecting University entrants. It is certainly acceptable that some candidates who may be excellent performers in Science or Arts subjects but deficient in English should be given a chance, but in such cases, a strong English remedial programme is needed to give these students the best possible chance to realize their potential.

Before continuing with a more detailed look at the language-related findings of the regression analysis, a further reference to admission requirements is necessary. This is prompted by a small research project conducted in the Mathematics Department by an M.Sc. candidate (A/Fattah 1977). Working from the assumption that the Biology section of the Faculty of Science is not making efficient use of all available information in selecting Preliminary-year students, A/Fattah carried out a regression analysis of the SSC results of a large sample of the 1975-76 Preliminary-year Biology students as predictors of university examination performance. His initial correlational analysis suggested that the SSC Science examinations (Mathematics, Biology, Chemistry, and Physics) were related in only a weak way to university performance - the correlation coefficients ranged from .229 to .282. It should be remembered that the Faculty of Science entrance requirement involves performance on the best three of these. On the other hand, SSC English correlated at .416, and, surprisingly, Religious Knowledge at .400. This suggested to A/Fattah that consideration of English and Religious Knowledge in selecting Biology students might increase the efficiency of the selection substantially. He then calculated a regression formula which included SSC English, Religious Knowledge, and the four Science examinations. He found that his formula produced a correlation of .63 with university examinations performance compared with one of .49 produced by the Faculty of Science admission requirement. Thus, A/Fattah also shows the importance of English in university performance and suggests that it be given increased emphasis in selection. His unusual finding that Religious Knowledge is important in Science performance, theological implications aside, suggests that there is a strong rote-memorization factor in performance in Preliminary-year Science, for, by all accounts, rote-memorization is a prominent feature of the Religious Knowledge examination. Finally, lest it be supposed that the data A/Fattah produced was biased in favour of a single group of students who did a single SSC examination and a single set of university examinations, he used his formula on data from the previous year's Preliminary-year and got the same result. These results confirm and amplify those of the present study at least insofar as the importance of English is concerned - no comparable finding of the importance of Religious Knowledge was found in the Study Habits sample, though interestingly enough, the two highest, though non-significant, correlations were in Arts and Science, of .40 and .27, respectively. Research on the predictors of success in the various faculties is clearly a very useful and interesting area.

Returning to the discussion of the present data, one last word about the whole sample results is necessary before looking at the faculty results. The regressions of the reading and listening test results suggest that, overall, the more important skill in university work is listening. Certainly, this fits in with the observation made in an earlier chapter that the major source of students' knowledge is lectures. Thus, those students who are proficient in aural English would tend to be better university performers as well. There are, however, great faculty differences, both here and in other factors, which we shall discuss below.

The results of Humanities faculties taken as a group show that the SSC 'content' subjects are somewhat better predictors of performance than is English, and that English in general is rather depressed as a predictor. This is mainly due to the selection processes in Law and Economics, as was discussed above. In Science, the correlation data supports that of A/Fattah, that SSC English is a very important predictor in addition to the SSC Science subjects, and, in fact, all of the English proficiency measures in Science correlate highly with university performance. As has already been pointed out, the total English proficiency regression (ER + ED + EF + SCE) shares 64.3% of the variance with university performance. There is no doubt that English is important in Preliminary-year Science. The Science Reading and Listening regressions suggest that much of the emphasis on listening in the whole sample result is due to Science, for there listening is far more important than reading ability, indeed, the major part of the Science Preliminary-year students' knowledge is gained in lectures and practicals where listening ability is very important.

In Arts, as has already been mentioned, the School Certificate Examination total score shows a fairly strong relationship to Arts performance, clearly suggesting that the School Certificate Examination is Arts oriented, not surprisingly. The finding that Reading proficiency is much more important than listening ability would be dubious if it were not part of a pattern that includes Economics and Law as well. The result is still surprising, however, and more research is needed to discover why reading is consistently more important to examinations performance in the Humanities faculties than is listening.

The results in both Economics and Law are very strange in many ways - particularly the Law correlations, which are at least partly explained by the low variances resulting from the selection processes in these two faculties. Thus, we should not expect high correlations with university performance, owing to the attenuation of ability toward the upper end of the range. An interesting piece of research would be an investigation of the correlation of the selection procedures with university performance, such as A/Fattah carried out in the Biology Department. The regression analysis in Economics suggests that English ability could be emphasised more than it is in selecting students. The very small proportion of variance for both reading and listening are hard to explain - it is probably connected with the general failure to find significant correlations with university performance in Economics. More research is definitely indicated.

The Law results, too, are somewhat confusing, the English measures reduced in importance owing to the above-mentioned attenuation. The relatively high correlations of School Rank, Arabic Reading, and Arabic Dictation with university performance are noteworthy. Most of the variance in Reading and Listening in the regression table is due to Arabic proficiency, as well. Certainly, a part of this importance of Arabic is due to the Shari'a component of the Law course. Outside of Shari'a, however, the lectures and reading are almost exclusively in English. There is a great deal of reading necessary (and in fact done) in Law, but reasons for the large Arabic factor in reading and listening are not clear. More research is necessary here, too.

A word should be said about the general failure to find any strong associations for the interview scales of Motivation, Study Behaviour, or Social-Adjustment. Such scales are notoriously difficult to quantify and it must be said that the present effort was not a particularly effective one. The examination of these scales by sub-groups based on faculty, region, and sex (discussed in Chapter Six) suggests that they are measuring to some extent the dimensions they are meant to, but it is clear from this analysis that the factors are not clear-cut enough to show significant associations with univeristy performance by themselves. Perhaps if they had been used as variables in a regression, they would have been more meaningful. Certainly motivation, study behaviour, and social adjustment must make some contribution to students' performance, as the research reviewed in Chapter Two indicates, and research into the nature and importance of these dimensions at Khartoum would be a worthwhile venture.

SUMMARY

The results of the regression analysis of 14 variables may be summarized as follows:

1) Sudan School Certificate results suggest that a student who is good in one subject is likely to be good in his other subjects.

2) There is apparently a strong factor common to all the SSC papers - possibly rote-memorization - suggesting that, in general, the individual SSC subjects are not measuring discrete factors.

3) The selection of students for Preliminary-year could be improved by emphasizing English more than is the case in most faculties. A credit is SSC English might be required.

4) In general, SSC English predicts success in university nearly as well as anything else in the School Certificate examination.

5) It is likely that the more information used from the SSC, the better will be the university selection process - viz. A/Fattah (1977). The total SSC score is particularly well-suited to the needs of Arts selection.

6) The results of the analysis of reading and listening regressions suggest that the former should be stressed in the Humanities, the latter in Science.

7) Arabic proficiency is apparently more important in Law than in any other faculty.

8) The quantified interview scales are not clear-cut enough to show significant relationships with university performance.

CHAPTER SIX

INTERVIEWS AND DIARIES

INTRODUCTION

This chapter is a report of the 'anecdotal' data gained by talking to and observing the students in the sample. Some of the data is more 'reliable' than other parts, but taken together it presents a picture of student life and attitude which can serve as a valuable starting point for further, deeper research and for teaching and study programmes in the University.

INTERVIEW REPORT

As part of the data collection for the Study Habits Research Project, 83 Preliminary-year students at the University of Khartoum were invited for interviews during July - August, 1976. The purpose of the interviews was to gather data from the students about their personal background, educational background, study habits, social life, motivation, and language background for use in comparison with language proficiency data, data on success in their university courses, and data from diaries which they kept for one week. Variables which will be considered are Faculty, Sex, Province, and Urban or Rural home.

SUBJECTS

Of the 83 Preliminary-year students invited for interview, 75 were actually interviewed: 25 from the Faculty of Science, 16 from Law, 18 from Economics and Social Studies, and 16 from Arts. Thirteen were from the three traditional Southern Provinces of Equatoria, Upper Nile, and Bahr El Ghazal, while an additional 18 were from Southern Darfur and Southern Kordofan. The remaining 44 were from all the other Provinces in Sudan. There were 21 females in the total group.

MATERIALS

The interview schedule was prepared by the researcher, based upon consultation with various members of University staff, and upon previous work on study habits (cf. Brown, Holtzman 1955; Entwistle, Nisbit, Entwistle and Cowell 1971; Biggs 1973). The schedule contained 37 items, with a total of 60 questions, to gather information on six variables, three of which are quantifiable - Social Life, Motivation, and Study Habits - the other variables being of a personal, educational, and linguistic nature. The interview schedule was prepared in English and then translated into Arabic by three experienced translators. After piloting and editing, the English and Arabic versions were reproduced on stencil for use by interviewers. (Copies of both the Arabic and English interview schedules may be found in the Appendix.)

PROCEDURE

Each subject was given a written invitation to appear for interview at a stated time and day and was offered 50 piastres for the interview. The interviews were conducted between 27 July and 7 August 1976, the Humanities students in the Linguistics Department office, the Science students in the ELSU office. Four interviewers were employed each day, so that in each two-hour session, eight interviews could be held, four in Science, four in Humanities, each interview taking about 25 minutes. A total of eight interviewers were used, two women and six men, all but one native or near-native speakers of Arabic. All were senior students or post-graduate teaching assistants in the Faculty of Arts. They were also paid a fixed sum per session. Each student was asked whether he wanted to be interviewed in English or Arabic (16% chose English). An informal atmosphere was maintained between subject and interviewer, as far as possible, and each interviewer was instructed to ask each question as it appeared on the schedule, then to prompt and probe as necessary, but in a consistent manner from subject to subject. (A copy of Instructions to Interviewers may be found in the Appendix.)

RESULTS

Looking first at the total sample (N = 75) it was found that the 15 provinces of Sudan were each represented by at least one student, the largest group being ten from Khartoum Province. They attended a total of 28 different Higher Secondary Schools. Their average age was 21.2 years and they had an average of seven brothers and sisters.

Background Data

21% had attended English-medium secondary schools, most of whom were from the South. 87% said their parents spoke Arabic, 37% said at least one parent spoke English. 75% of their fathers were literate in Arabic, while 32% could read English. Only 17% of their mothers could read Arabic and 8% English. 88% said they spoke

Arabic best, the other 12% distributed among English, Dinka, Shilluk, Kakwa, and Bari. For other languages spoken, 88% said English, 12% Arabic, 16% French, 9% Dongalawi Nubian, and a small number distributed among Russian, Bari, Shilluk, Balanda.

Social Life

Students were asked questions in the general area of their social life. Eighty-six percent said they liked living in Khartoum very much or 'so-so', but 14% said they did not like it at all. Only 23% stayed in Khartoum during the between-terms holiday - 84% of those who left going home. Sixty-one percent said the hostels were too noisy, but only 27% said they couldn't get enough sleep at night. About 15% said illness was a problem. When they had personal problems, 41% said they went to friends for advice, 10% to the warden, 8% to a relative in the University, and 27% to no one. Four percent claimed they had had no personal problems! Asked if they prayed regularly every day, 64% said yes. Fifty-four percent said they had friends among the opposite sex. When asked about social activities in the University, 71% said there were not enough. They were also asked about their interest in national politics, and 62% said they were interested, but 65% said they hadn't time to participate. Seventy-eight percent, however, said they thought students should take part in politics.

Motivation

Students were asked some questions which attempted to get an idea, often in an indirect way, of their motivation and attitude toward their work and the University. Asked if they enjoyed university life, 29% said 'very much', 47% said 'so-so' and the remainder, nearly a quarter, said 'not at all'. Forty-five percent said they studied in a way which was somehow different from their friends' study habits. Sixty-eight percent thought they had to attend too many lectures and 34% thought one hour was too long for a lecture - they got tired. Forty-seven percent said they had never asked a question in a lecture, and 34% said their subjects in their first year were not interesting. Two-thirds admitted that it was their fault when they did badly in their courses, while 10% blamed it on the teacher, and another 10% on the subject being too hard. Asked if they thought their lecturers knew their names, 83% replied negatively, and when asked if they thought their teachers were interested in them personally, 76% said no. Although all four faculties have academic advisors to aid the students in their problems with academic matters, 50% of the informants said they had no academic advisor. Finally, the informants were asked if they were satisfied with the way they were being taught in the University - 52% said no.

Study Habits

In order to get a general view of study habits among the students, they were asked questions about problems of study, where they studied and how they went about it. Fifty percent of the students said that if they didn't understand something in a lecture, they went to other students for help, while 31% claimed that they would ask the lecturer; eleven percent said they consulted books of reference, and 5% said they just didn't try to find out. Eighty-four percent claimed they usually studied alone, 11% usually with friends. Asked if they had enough study time, 70% said yes, 30% no. Forty-eight percent said they usually had trouble finding books teachers asked them to read - 5% didn't try. Eighty-two percent said they did not try to learn everything by heart they heard in lectures and read, but 49% said they tried to write everything they heard when taking lecture notes - 95% did try to take notes during lectures. Seventy percent said they received prepared lecture notes from some lecturers. Sixty-five percent said they preferred to attend practicals and tutorials, while 35% said they preferred lectures. Eighty-one percent claimed they could understand most of what their lecturers said in English. All of the 19% who could not understand most of what their lecturers said were worried by this. Fifty-four percent said none of their lecturers ever lectured in Arabic. Asked if they would like to have their lectures in Arabic, 79% said no. Seventy-eight percent said they sometimes discussed their work with their friends in Arabic, 90% said they sometimes discussed their work in English. Twenty-seven percent usually studied in the hostel, they said, while twenty-four percent used the Main Library; however, 42% customarily used their Department Library or study rooms. One-third said they couldn't always find a place to study when they wanted it.

Differences between Sub-groups on Interview Responses

Looking now at differences in interview responses by faculty, only a small number of significant differences were found. The students in the Faculty of Law said they preferred lectures, while the students in the other faculties preferred tutorials ($X^2 = 8.67$; $p < .01$; phi = .41), and the Law students also said more often than the rest that they asked the lecturer when they didn't understand something ($X^2 = 15.4$; $p < .01$; phi = .51). Other students said they usually asked each other. More students in the Faculty of Economics than in the other faculties said they were generally satisfied with the teaching they were getting ($X^2 = 3.82$; $p < .05$; phi = .23) - the only faculty where a majority were satisfied. The Science faculty was the only one where most students reported that they had no academic advisor ($X^2 = 24.7$; $p < .01$; phi = .59). More students from the faculties of Law and Arts said that they had asked a question in a lecture at least once ($X^2 = 13.62$; $p < .01$; phi = .43).

These findings show the Faculty of Law as first, providing the sort of lectures that students preferred, and second, an atmosphere in the lecture that encouraged students to ask for help when they needed it. The reasons for this are no doubt complex, but it does suggest that the other faculties might take a closer look at how things are done in the Law lectures with a view to adapting the procedure to their own situations. The fact remains, of course, that the Law students joined those in Arts and Science in saying that they were not satisfied with teaching in their faculty, which suggests, at a minimum, that a distinction needs to be made between lectures and teaching in general - the students in Law, at least, expect more than just good lectures. Students in Economics said both that they preferred tutorials and were generally satisfied with the teaching they received. Again, this suggests that the teaching approach in Economics might be worth a closer look. The data from Law and Economics points, on the whole, toward a more personal approach to teaching - question and answer sessions in lectures, and student participation in tutorials.

The pattern of responses to the questions on lectures in Arabic and asking questions in lectures is interesting: that Law and Arts do have lectures in Arabic and their students ask questions in lectures, while the reverse is true of the Science and Economics faculties. While causation should not be assumed, these results do suggest the desirability of research into the effects on student participation of lecturing in Arabic. This could be done, for example, in the Department of History, where parallel courses are offered in Arabic and English.

The Faculty of Science, when compared with the other faculties, came out rather negatively: students in Science said they were not satisfied with the teaching they received, preferred practicals over lectures, seldom asked lecturers for help, and knew of no academic advisor. Certainly, a contributing factor in the Faculty of Science is the overwhelming number of students it has to cope with in the Preliminary-year - over 1100. The resulting impersonalization of teaching probably accounts for a great deal of the negative feeling students show about their work in science. In addition, it may be that science students' expectations are higher. It should be noted, however, that the science students came out lowest on all three of the quantified scales - Study Habits, Motivation, and Social Adjustment - compared with other faculties (See Table 1). It must be emphasized that these findings are based upon students' responses to the situation they find themselves in at the University. They say nothing about the efficacy of the approach in Science or in any other faculty - this is a question which must be answered by the members of the faculty - but if there is dissatisfaction with the results of teaching, a clue to the causes may be found in the above findings.

Turning to an examination of the differences in responses between males and females, it was found that more girls than boys said they talked their problems over with no one ($X^2 = 7.8$; $p < .01$; phi = .34); more girls had friends among the boys than vice versa ($X^2 = 15.0$; $p < .01$; phi = .45); more girls thought their lecturers knew their names ($X^2 = 4.32$; $p < .05$; phi = .24); and more girls claimed to pray regularly ($X^2 = 3.9$; $p < .05$; phi = .23). On the other hand, more boys claimed they wrote only the important things when they took notes ($X^2 = 5.44$; $p < .05$; phi = .27); more boys said they had asked a question in a lecture ($X^2 = 11.6$; $p < .01$; phi = .39); and more boys found their preliminary-year subjects interesting ($X^2 = 6.87$; $p < .01$; phi = .31).

In general these findings suggest that the females are more socially oriented, while the males are more highly motivated and academically oriented. This is supported by the quantified data, which showed the girls scoring higher than the boys on the social adjustment scale but lower on the motivation scale. The finding that the females had no one within the university with whom they felt able to talk over personal problems - not even each other - is somewhat surprising. It would be interesting to explore this avenue of enquiry further to discover, for example, its relationship to Sudanese culture in general, and the role of women in society. Interview data suggests that girls have more visits from relatives than do boys. The social orientation of the females, together with the apparent lower motivation, would suggest that simply providing them with appropriate study skills and techniques wouldn't necessarily improve their university performance.

Few significant differences were found between students from the Southern Region and those from the rest of the Sudan, owing, probably, to the small number of Southern students in the sample. There was a significant difference on two of the social variables: more Southern students said there was too much noise in the hostels ($X^2 = 4.28$; $p < .05$; phi = .24), and fewer Southern students said they prayed regularly ($X^2 = 7.47$; $p < .01$; phi = .33). There were also two academic variables where significant differences were found: while the majority of students used a variety of places to study, the Southern students preferred to study in department libraries ($X^2 = 10.14$; $p < .01$; phi = .36), and more Southern students said they wrote only the important things in lecture notes ($X^2 = 10.9$; $p < .01$; phi = .39).

Only the last difference might be said to be of real interest, and is almost certainly related to the Southern students' background in spoken English - they are perhaps more aware of the rhetorical devices used to signal important parts of a lecture. Reasons for the other differences are more difficult to find, and probably fairly trivial without more data from a larger sample of students from the Southern Region.

The difference between the sub-groups discussed above are only those where the findings were statistically significant - unlikely to have happened by chance. There were , of course, many other differences which did not achieve significance, but which were large enough to warrant further study. For example, a relatively large number of students in Arts said they discussed their personal problems with no one; Science students were the only group where a majority said they had no friends among the opposite sex; a larger proportion of Arts students said they prayed regularly; a smaller proportion of Science students were interested in politics; a slightly larger number of Arts and Economics students said they couldn't understand most of what their lecturers said; Law students, more than any other group, studied in their Faculty library - for obvious reasons; students in Arts and Science reported the most problems in finding a place to study. A majority of students in Law and Science said they studied in a way which was different from their friends, while a majority in Arts and Economics said they did not; a majority in Economics and Law said they could usually find the books teachers asked them to read, while a majority in Arts and Science said they couldn't. Seventy percent of the Science students said they tried to write only the important things in lecture notes, while students in the other faculties were evenly divided; a smaller proportion in Economics and Law received prepared notes from their lecturers; a larger proportion in Science and Economics thought they had to attend too many lectures; a majority in Science said they did not find their Preliminary-year subjects interesting; a majority in Arts thought their lecturers were interested in them personally, while in other faculties a majority thought not.

Some differences between males and females, which, while not statistically significant, might bear further investigation were that a greater proportion of females had parents who were literate in either Arabic or English; a smaller proportion of females reported that they got ill often; fewer girls said they would like to have their lectures in Arabic; a larger proportion of females said they preferred tutorials over lectures.

Finally, some interesting but non-significant differences between Southern students and their colleagues from other parts of the Sudan included the fact that a majority of Southern students said they had no friends among the opposite sex while a majority of the other students said the opposite; a larger proportion of Southern students said there were not enough social activities for them in the University; a much greater proportion of Southern students said they would not like to have their lectures in Arabic; a larger proportion of Southern students said they did not study in a different way; a larger proportion said they did have enough study time; a majority of students from the Southern Region reported that they were able to find the books assigned, compared with a majority of the rest who weren't; a larger number of Southern students said they got tired during a one-hour lecture but a greater number of them nevertheless preferred lectures over tutorials; a larger number had asked questions in lectures; a majority claimed they had no academic advisor; and a larger proportion were satisfied with the teaching they were getting.

Quantifiable Interview Data

Three groups of items on the interview schedule, relating respectively to Study Behaviour, Motivation, and Social Adjustment, were quantified. This was done, following Entwistle, Nisbit, Entwistle and Cowell (1971), by assigning values to responses according to whether they were in an expected direction or not. For example, students were asked how they found out about information they had missed in a lecture. Those who answered that they asked the lecturer were given a score of two, those who said they looked it up in a book were given a score of one, those who said they asked another student were given no score, while those who said they just didn't find out were scored minus one. Eight items were treated in this way as indicators of study behaviour, 11 as indicators of motivation, and eight as indicators of social adjustment. Once each item had been quantified, a total for each of the three variables was calculated to give a Study Behaviour score, a Motivation score, and a Social Adjustment score for each subject, the whole group, each faculty, males and females, students from the Southern Region and students from the rest of the Sudan.

The indicators of study behaviour were interview items 18c, 23, 25, 26, 27, 28c, 30c. High scorers in study behaviour were students who said they found out missing lecture information by asking the lecturer or by using a reference book; who studied alone usually; who said they didn't have enough study time; who claimed they could usually find the books assigned by teachers; who said they didn't try to learn everything by heart; who tried to take lecture notes; who wrote only the important things; who preferred tutorials over lectures. Students who matched these specifications were given two points for each; those who gave ambivalent or mildly negative responses (e.g., they get missing lecture information by asking other students) were given no point; those who gave completely negative responses (e.g., they didn't try to get missing information) lost a point from their score.

The motivation indicators were items 10, 24, 30a, 31 - 37. The high scorers in motivation said they enjoyed university life very much that they studied differently from their friends; that they didn't have to attend too many lectures; that they didn't get tired during a one-hour lecture; that they had asked a question in a lecture; that their subjects were interesting; that it was their own fault when they did badly; that their lecturers did know their names; that their lecturers were interested in them personally; that they had an academic advisor; that they were satisfied with the teaching they received. Again, students giving positive responses to these indicators received two points, ambivalent or mildly negative responses (e.g., they liked university life 'so-so') got no point, and negative responses (e.g., they didn't like university life at all) lost a point.

Indicators of social adjustment were items 8, 11a, 14, 15, 16b, 16c, 17. The high scorers said they liked living in Khartoum very much; the hostels were not too noisy; they had friends among the opposite sex; they prayed regularly; they were interested in politics; they had time for politics; they thought students should take part in politics; they were not satisfied with the social activities provided by the University. Points were awarded or subtracted in the same way as in the other two variables.

Table 1: Quantified Scores for Three Variables

Variable	Whole Sample	Arts	Econ.	Law	Sci.	Male	Female	South	Rest
Study	9.76	9.22	9.13	10.54	8.44	9.69	10.46	9.14	9.79
Motivation	7.03	7.61	7.42	7.74	5.56	7.34	6.34	6.87	7.19
Social Adj.	8.47	8.27	8.93	9.40	7.74	7.26	99.23	7.24	8.64

First, it should be noted that these scores are relative and not absolute - that is, they have no meaning outside the context of the present research. The score of 9.55 for the whole sample on study behaviour can be said to be neither 'good' nor 'bad' except insofar as it would have been possible had each subject given the expected response, to achieve a score of 16 for each variable. It is possible to compare the sub-groups as being above or below the average of the whole sample. For example, Law is nearly a point above average on study behaviour, while Science is more than a point below. The females scored higher than the males on the study habits scale, while the students from the Southern Region scored a bit lower than students from the rest of Sudan. On the motivation scale, the Science students scored lower than the rest, the girls lower than the boys, while little difference is to be seen between the regional groups. Finally, on the social adjustment scale, Law is quite high and once again, Science is low, the females scored higher than the males, and the Southern Region students scored lower than the rest. On all three scales, Arts and Economics hover around the average.

STUDENT DIARIES

Introduction

The students in the sample were asked to keep a diary of their daily activities for one week just before examinations. The purpose was an attempt to obtain a description of student life in three areas - lecture attendance, study behaviour, and social activities. The students were given diary forms either in English or Arabic and were instructed to write each day their activities in the three areas. No monitor was kept on the students as they completed the diaries and the data from them must, therefore, be treated as anecdotal rather than as strictly factual. There follows a discussion of the method used in obtaining the diary data, including a description of the diary forms, and of the procedure employed in th gathering of the data. This is followed by a presentation and discussion of results, and finally by conclusions which may be drawn and suggestions for further research.

Method

Diary Forms. The diary forms were prepared in both English and Arabic (an example of each is in the Appendix), and comprised two sections: a cover page of fairly lengthy instructions, and seven pages of daily dairy forms. Each day was divided into two-hourly intervals, from 5 a.m. to 'bedtime'. Sections were provided within each interval for the respondent to write brief notes on his personal activities, such as rising in the morning, eating, praying, visiting; the lectures or tutorials/practicals he attended (or should have attended); his study sessions throughout the day.

Procedure. After each subject was interviewed, he was given a copy of the diary form - either in English or Arabic, as he chose - and in this way, 75 diary forms were distributed between 27 July and 7 August 1976. The interviewers went carefully over the instructions with the students, pointing out to them the kind of information desired, emphasizing that it should be done each day, and where to turn the diary in when complete. Each subject was offered £S 1 for the completed diary, to be received when it was handed in. Seventy-four completed diaries were returned, 16 in English and 58 in Arabic.

Discussion of Results

Looking first at the overall picture presented by the diary information, it can be said that the 'average' student rose about 6.30 a.m., attended (just before examinations) two or three lectures during the day, slept for about two hours after lunch, and spent six or seven hours studying in the evening, going to bed around midnight. His non-academic, or recreational activities were very limited, indeed rather boring; the most common form of relaxation was chatting with friends in the hostels, followed by visits from relatives and friends outside the University. Girls, it seemed, received more visits from relatives. Otherwise, the average student spent his free time in the hostel listening to music (either on the radio or on records), watching television, washing clothes. Only a few students reported reading as a recreational activity, nor was sport a major source of recreation - swimming and basketball being the most frequently mentioned. The most common outside activity was attending the cinema and, very rarely, a party or picnic. Occasional visits to the homes of relatives in the three towns were mentioned.

Table 2: *Quantified Diary Data*

	Arts	Economics	Law	Science	Total Sample
Rise	6.30 a.m.	6.15 a.m.	6.30 a.m.	6.20a.m.	6.30 a.m.
Lectures, etc.					
per day	3	2.5	1.9	2.6	2.4
per week	18.3	16.3	12.0	14.7	15.3
Siesta	1 1/4 hr	1 2/3 hr	2 hr	2 hr	1 1/2 hr
Study					
per day	6 hr	5.5 hr	8.2 hr	7.2 hr	6.7 hr
per week	42 hr	40 hr	58 hr	50 hr	47.5 hr
Bedtime	midnight	11.30 p.m.	12.15 a.m.	12.35 a.m.	midnight

Remembering that these figures represent what the subjects reported during the weeks just before end-of-term examinations, it would seem that Arts students attended the most lectures, those in Law the fewest; that Law and Science students studied the longest hours. While these results do support, in relative terms, commonly-held views of the workload of students, it must also be remembered that they are based on *reported* lecture and study times and not on any sort of objective observation. Nevertheless, all students in the sample had the same opportunities to report on these two items and to exaggerate or understate as they chose. The fact that differences did emerge between faculties suggests that the differences must have some relationship to reality - perhaps, for example, the Law and Science students reported longer hours for study because they *believe* themselves to be the hardest-working students in the university.

Certainly, anecdotal information gathered from English language lecturers in Law and Science who are in a position to make comparisons among faculties, suggests that the data is relatively valid. In a similar way, the fact that the Arts students claimed to be in class more than the others and to study a relatively shorter time suggests that the relationship between required class attendance and available study time might be explored. (Indeed, the Faculty of Arts committee in charge of re-structuring to meet the demands of the new course-unit system has made this area one of its prime concerns.)

There follows a short selection of comments, unsolicited, provided by the students as they filled in their diaries. They provide a bit of insight into the life and thinking of our students. One comment which brings home to this researcher, at least, the similarity between our students and undergraduates everywhere is the report by one respondent on an evening gathering in the hostel:

> Discussion on the existence of God, with friends and others.

There were a number of comments giving reasons why lectures or tutorials were missed:

> Supposed to be an archaeology lecture, but I didn't attend because I could understand nothing.
>
> Skipped it because the lecture is but a dictation from the Penal Code which I can copy any time.
>
> No lectures because I got up late...didn't feel like reading.
>
> Dropped lecture because I was tired. (Three respondents)
>
> Revising so dropped the lecture.
>
> I didn't attend because I was worried.
>
> Boring. (Three respondents)

Some students provided comments on various problems:

> Discussion with a roommate how to approach an examination question.
>
> I didn't gain much (from) my reading because it is a bit difficult.
>
> Couldn't understand the terminology.
>
> I have made a silly mistake in answering a question.
>
> My ability to understand was very good today.

Sample pages from diaries may be found in the Appendix.

GENERAL DISCUSSION

This interview data, like all survey data gained by asking people what they do or think rather than observing their activities, must be treated with caution. We must think, in interpreting the results in terms of 'tendencies', 'directions', and 'likelihood' rather than in terms of 'facts' or 'certainties'. It would be unwise to treat this information as absolutely representative of student opinion and life, not so much because of sampling bias - there is no reason to believe that this group is in any systematic way different from the rest of their colleagues - but because it is difficult to interpret the causes behind the statements the interviewees make. At the same time, it is obviously the case that there is some reality reflected in the data - readers are asked to give some thought to the results in light of their own knowledge of student life and problems. The following discussion will attempt to draw some pieces of the data together.

The background data suggest just that this group of students come predominantly from the Khartoum, Gizera, Nile, and Northern Provinces and this matches data provided by Salah (1971:22). There are no doubt many reasons for this - these provinces are heavily populated; they are relatively well-off economically; their cultural environment probably gives the children living in them an edge over those in other provinces. The average age of these students - 21.2 years - is above that of their counterparts in Europe or the United States, certainly, but within the developing world, it is not unusual. Nor is the reported size of family. The 21% who said they attended English medium schools is certainly too large a proportion compared with the general population, and is mainly related to the number of students in the sample from the Southern Region, who are in fact over-represented in order to provide sufficient data to study. Concerning the 'best language', some students apparently treated this question as asking for the language they knew best after their mother-tongue. Apart from Arabic and English, the languages of the Southern Sudan account for most of the 'other languages' spoken, an exception being Dongolawi Nubian, a vernacular of the Northern Sudan.

Personal life in the hostels appears to be a problem for some: over a quarter said they didn't get enough sleep (though what 'enough' means varies individually) and 15% claimed that illness was a problem. While this is not as large a proportion as Dr Muwaffak reported (35%), it is still indicative of a problem which should be investigated further. The biggest single complaint was of too much noise in the hostels. Obviously Dr Muwaffak's suggestion of a student-enforced ban on noise during study hours has not been taken up. A sizeable proportion said they pray regularly - not a surprising finding, but early rising for prayers contributes to a very long day and a consequently shorter sleep period. The large majority of complaint about the lack of social activities reflects perhaps a consequence of the dissolution of the Students' Union. The interview question specified 'clubs , parties, picnics, and the like'. Whether this was a function of the old Students' Union or not, it should certainly be taken up either by a new body or by the Students' Affairs Section. It is very likely that the equally large amount of dissatisfaction with 'University life' is in great part accounted for by dissatisfaction with social life. The proportion of students who reported to have friends among the opposite sex was somewhat surprising - the vast majority of the Preliminary-year comes from single-sex schools and many of them have strong social and religious inhibitions to overcome in becoming comfortable in a coeducational environment. Some students interviewed (particularly males) did seem shocked that it should be suggested that they might have friends among the opposite sex, but this was a minority. The finding that a small proportion of the students went to an 'official' advisor when they had personal problems and that most went to a friend or relative suggests a certain amount of alienation from the official system of hostel wardens, but probably no more than exists among students elsewhere. The fact that over a quarter said they went to 'no one' with their problems is somewhat startling, however. There is undoubtedly a cultural interpretation of 'personal problems' at work here, as will be suggested in the discussion of male and female sub-groups. Finally, the overwhelming majority of students thought students should take part in national politics, echoing the tradition of several 'generations' of Khartoum students. This sentiment, indeed it might be called commitment, toward politics and political-social-religious responsibility should certainly be studied more deeply. It seems very much a part of Khartoum student life. Looking at the results of the questions on student motivation, in general the data suggest dissatisfaction and low motivation toward studies: there are 'too many lectures', 'Lectures are too long', 'I never ask questions during lectures', 'My subjects in Preliminary-year are not interesting','My lecturers don't know my name','Lecturers aren't interested in the students', 'I have no academic advisor', 'I'm not satisfied with the teaching I get at the University'. At the same time, it is significant that the majority of students believed it to be their own fault when they did badly - an attitude which fits in well with a prominent staff attitude toward students of 'sink or swim'. They also match well the observations of the Committee on Academic Reform (1972:12):

> In the existing system students are spectators... Little is known about a student outside the record of a few final examinations throughout his entire undergraduate training. It is not surprising that there is considerable lack of enthusiasm amongst students.

It remains to be seen (and studied) how far the new course-unit proposals go in alleviating this situation.

Even casual observation of students at work shows that they depend a great deal upon each other for academic help - especially in the form of copied lecture notes (50% said they went to their friends for help when they couldn't understand something in a lecture, one-third went to the lecturer, 11% tried books). It was a bit surprising, therefore, to find such a small proportion (11%) saying they studied with friends. It seems likely that the students made a distinction between 'studying' - sitting at a table and working, whether copying out notes, writing an essay, or memorizing - and discussing work or coaching each other for examinations. It was interesting to note that most students felt they had enough study time (though they also felt they had too many lectures!). A sizeable proportion use the department or faculty libraries or study rooms for their work, and a quarter tried to work in the hostels. Thus, the majority of Preliminary students habitually work outside the main library, suggesting that more and better facilities might be provided by faculties, especially since a third of the students said they had trouble finding a place to study. Another problem mentioned by a large proportion was finding books their lecturers had assigned - this problem of texts and reference works is a perennial one.

The questions about the lecture-tutorial system brought some interesting findings. The large proportion of students who said they tried to write everything their lecturers said illustrates a well-known uncertainty about what is important and what is not. The large proportion who said they received 'prepared lecture notes' were referring collectively to notes that are either dictated, writted on the blackboard, or on stencilled 'handouts'. The first two forms are the more common, the latter rare except in language classes. One reason for this is the difficulty of getting stencils typed and the copies run off. Students in general did not express strong preference for the lecture format, preferring practicals and tutorials. Interestingly, one problem they did not see as a contributor to this was that of language, viz, the overwhelming majority saying they could understand most of what their lecturers said in English! Dr Muwaffak reported that half of his students had problems in this area. The results of the testing in Chapter Four of this report speak of a great problem here. Yet, the students do not see it so. Perhaps connected with this feeling is the almost equally large proportion against Arabicization. It is thus likely that consideration of fashion and status are far more powerful incentives among students in favour of retaining English medium instruction than instrumental ones suchas easier learning and more relevant conceptualization.

The results of the interview data recast into faculty sub-groups points first to a more personal approach in teaching: the finding that the Law students preferred lectures compared with an opposite finding in other faculties (coupled with the observation that teaching in Law, owing to small numbers, perhaps, is more personal). Certainly one important consideration is the personality of the lecturer - something the most sophisticated teaching and/or study methods can do little about. Yet another consideration for the effectiveness of lectures is the students' own cultural approach to them, involving their perceived right to ask questions of a teacher, and, as Dr Muwaffak suggested, their fear of shaming themselves before their peers. Students' expectations must surely play a part in their receptiveness to teaching. For example, the greater proportion of dissatisfied students in Science may be a result of their being better-prepared students having higher expectations than their colleagues in other faculties. Faculty differences in student behaviour and requirements certainly merit more and deeper study.

The very interesting fundamental academic-social difference between males and females in the University also calls for more exploration. It is likely that despite equality of opportunity, the very fact of separate school facilities produces unequal products. This is certainly hinted at by the results of the Scientific English test, where the females scored significantly lower than the males, mainly, it was proposed, on scientific grounds rather than linguistic ones. These interview findings possibly reflect the priorities attached to university education related to socio-economic advancement: the males may see success primarily as a matter of academic experience, while the females may attach primary importance to finding a 'successful' husband. This may not be due to the woman's personal preference but the result of social and cultural constraints. Interesting research could be done on women's avenues to 'success' in the Sudan. Another interesting finding, perhaps related to the others, is that more women than men talked about their 'personal problems' with no one. In view of the above suggestions that women are more socially-oriented than men, it may be that they interpreted 'personal problems' differently, the men thinking of adjustmont problems in the university, the women of more intimate or private problems. Here much fruitful research could be carried out.

Finally, the failure to find many significant differences between the students from the Southern Region and those from the rest of the Sudan is somewhat puzzling. Certainly, the very small number of Southern students in the sample meant that differences would have to be quite large to be statistically significant, and few were so large. Secondly, it is probable that it is misleading to treat 'Southerners' as a homogeneous group - linguistically, culturally, and socially, the Southern people are widely divergent - as, for that matter, are people from the rest of the Sudan, though perhaps the divergence is not so pronounced. In any case it will be difficult to find large differences in behaviour within such gross (and somewhat arbitrary) parameters as 'South' and 'North'. Nevertheless, the results suggest that there exist some differences which affect both social and academic life within the University and these should be explored further, perhaps along more meaningful and subtle dimensions than the traditional 'North' and 'South'.

The quantified interview data, producing scales of Study Habits, Motivation, and Social Adjustment, interpreted as descriptions of various groups, generally support other findings in the study, though as with the other findings, too much weight should not be placed on them alone. Thus we see that the Science students are as a group quite 'different' (precisely how is a subject for further study) from those in the other three faculties. In other words, it may be suggested that what makes a good student, well-motivated and adjusted, in Arts, Economics, or Law, is not the same for Science. Similarly, the females scored much higher than the males on the Social Scale, and for some reason, higher on the Study Scale. The Southern students scored consistently lower (but not much lower) on the three scales than the rest of their colleagues. More work on these and other dimensions would help clarify and remedy study problems among our students. These results merely add to our picture of the complexity of the study situation - one which may not be appreciably altered by 'remedial' English or study skills courses.

Finally, another way of summarizing the interview results is to recast them into groups of 'good' and 'not so good' students, 'good' being those more than one standard deviation above the mean in their Preliminary-year final examinations, 'not so good' being one standard deviation below the mean. Looking at the latter group first, the majority of the poorer students said they pray regularly, ask other students for help when they don't understand something, study in a way *no* different from their friends, usually *can* find the books their teachers assign, write only the important things in lecture notes, generally *are* satisfied with the teaching they receive. Among the good students, the only major differences were that they said they had trouble finding the assigned books, tried to write everything in their lecture notes, and generally were *not* satisfied with the teaching. An equal number said they did and did not pray regularly, an equal number studied in hostels, main library and departmental libraries, an equal number studied like and different from their friends. These are not particularly meaningful differences, and certainly do not tell us what the average or poor student might do to make himself better. A hint may be found in the finding that the poor students *said* they wrote only the important things in lectures, the good students trying to write it all. This fits in with what we know of the principal study strategy of these students - rote memorization, and may be linked to an ability to keep a lot of facts in one's head and to select from this store the relevant information at examination time. This in turn suggests that hard work may play a part. In fact, the number of hours of study time reported by the better students in their diaries was 52 hours, and that of the poorer students was 41 hours, a difference of 11 hours, which just failed, however, to reach statistical significance ($t = 1.65$; $p < .10$). Thus, it may be that the better students are those who work longer hours and memorize more material. Further research will tell.

CHAPTER SEVEN

EIGHT MONTHS LATER

INTRODUCTION

In October, 1976, the students in this study moved to the second, or 'Intermediate' year of their studies. In order to investigate the changes, if any, that had taken place in the group during the eight months since they were tested and interviewed in their Preliminary year, the students were asked to appear for re-testing in reading and were also sent a questionnaire containing many of the questions they had been asked in the original interview. This chapter deals with the results of the test and questionnaire.

METHOD

Subjects

Of the original group of 76 who were tested in 1976, 48 responded to the letter sent to them in 1977: thirteen students in the Faculty of Engineering and Architecture (from the Preliminary-year Faculty of Science Mathematics Section); thirteen from Law; twelve from Economics; and ten from Arts. Except for three of the Arts students who were doing English as a subject, none of the group were attending English language classes in their second year of studies, having passed the Preliminary-year English.

Materials

The students were sent a questionnaire in English, containing 14 questions, most of them retaining the wording of the interview of 1976 (a copy of the questionnaire may be found in the Appendix). The questions selected for the questionnaire were those which seemed particularly interesting or meaningful from interviews. An additional item asked whether the student considered himself to be a better student in his second year than in his Preliminary year and provided a list of reasons to tick.

The English reading test was the same test that had been administered in 1976. It was considered that the eight-month interval between test sessions would be sufficient to prevent any substantial increase in scores due to familiarity with the material. The Engineering students were given the Science cloze test, the Arts, Law, and Economics students the 'Humanities' test.

Procedure

The students were told by letter to bring the completed questionnaire with them to the test sessions (one for Engineering, one for Humanities students), which were held during the second semester. The students were offered one pound for the completed questionnaire and the reading test. They were given 35 minutes to complete the reading test.

READING TEST RESULTS

Table 1 shows the results of the English Reading test for the Humanities group, and for each of the faculty groups, including the mean score ($\overline{X}$), standard deviation (sd), and reliability coefficient (rel.) for 1976 and 1977.

Table 1: English Reading Scores for 1976 and 1977

	Arts		Economics		Law		Humanities		Science	
	76	77	76	77	76	77	76	77	76	77
$\overline{X}$	8.8	11.3	12.7	16.0	13.8	14.7	12.3	14.2	19.2	22.8
Sd	5.1	4.4	5.5	5.3	4.7	4.7	5.0	5.1	6.4	6.5
Rel.	.72	.55	.69	.61	.55	.49	.62	.61	.71	.71

There is in each case a significant ($p < .05$) increase in scores from 1976 to 1977, though in no case could it be said to be overwhelmingly large.

The Pearson product moment correlation between 1976 and 1977 scores was .66 for the Humanities group and .73 for the Science group (both significant at 1%).

Table 2 shows the average amount of gain in raw scores, and as a proportion of the 1976 score. Note that Law made by far the smallest proportion of gain, and that Economics made the largest. The amount of gain in Humanities is significant ($t = 2.77$; $p < .01$; $r_{bp} = .43$) as is that in Science ($t = 2.64$; $p < .05$; $r_{pb} = .61$) and Arts ($t = 2.05$; $p < .05$; $r_{pb} = .48$) while those in Economics and Law are not, owing most probably to differences in the variance of amount of gain.

Table 2: Amount and Proportion of Gain in English Reading

	Arts	Economics	Law	Humanities	Science
Average Amount	2.5	3.3	.9	1.9	3.6
Average Proportion	28.4%	26.2%	6.5%	15.4%	18.8%

The correlation of the proportion of gain with original test is, for the Humanities students, -.57 ($p < .01$) and for Science, a non-significant -.40. t-Tests on the difference between the initially high and low scorers showed that the low scorers in both the Humanities and the Science groups made significantly greater gains (Hum. $t = 20.95$; $p < .01$; $r_{pb} = .80$; Sci. $t = 6.46$; $p < .01$, $r_{pb} = .76$).

Discussion

These test-retest results suggest that the Humanities and Science students made significant amounts of gain in English reading proficiency over the eight months between tests. This is doubly interesting because, since the first test was given toward the end of the Preliminary-year, the students (except for three doing English as a subject) had had little formal instruction in English language since the initial test. Whatever improvement they made was due to the use of English as a medium of instruction and of reading. However, it is also obvious that it was the lower scoring students who made the greatest gains, both within and across faculties. This suggests that there is a threshold of English proficiency required for university work, and that students below this level will make significant gains in proficiency while as they approach the level and surpass it, improvement slows down and, one imagines, stabilizes at an optimum level for success/survival in university. Of course, this is a necessary level, but not a sufficient one for success - if English proficiency were all that were required, no native speaker of English would ever fail! Certainly this is not a new idea (cf. Ingram 1970; Davies 1975) but much more research is needed to verify it and to locate empirically since the hypothesis of an English threshold is, de facto, the present English teaching policy in the university. In this regard, it is important to note that in Humanities, the majority of students, on the results of the second test, were reading at a 'frustration' level (below 38%). Reemphasizing the point made in Chapter Four, these results suggest, given that the passage upon which the test was based is not widely different in difficulty from the usual reading the students are asked to do, they are able to succeed (at least in their first two years) despite a low level of English reading proficiency. A necessary next step is an investigation of the English reading (and of general English proficiency) required by lecturers - both the 'official' requirements (i.e. reading lists) and the 'practical' requirements (i.e. the minimum necessary). Some research of this nature has been begun; for example Swales (1977) has shown that in some Botany essays of a group of second-year students, the most important element of 'English' in relation to the 'Botany' marks on the essay was organization and lay-out (r = .67) rather than grammar r = .35).

It was not possible to administer the Dictation Test a second time. It would have been interesting to have studied the improvement in listening ability, gained primarily through exposure to lectures and tutorials conducted in English. This is certainly a subject for future research.

QUESTIONNAIRE RESULTS

In general, the students in their Intermediate (second) year 'liked' living in Khartoum and the University a bit less than in their Preliminary-year. This was especially true in the latter case, where, in 1976, 17 students had said they liked university life 'very much', in 1977, only 11 said so. Along similar lines, there was more dissatisfaction with 'the way you are being taught': in 1976, 23 were satisfied, 26 were not; in 1977 the numbers were 10 and 37, respectively. Especially in Science was the feeling strong - in 1977 only one student claimed to be satisfied with the teaching received. Paradoxically, more students claimed to be interested in the subjects in Intermediate year than in Preliminary year - 30 in 1976, 36 in 1977. There was also a greater tendency in 1977 to believe that their English was alright - 40 in 1976 felt that they could understand their lecturers in English 46 in 1977 - but there was also a slightly greater tendency to want Arabic lectures, owing mainly to the Arts students, a majority of whom were in favour - though the majority of the other faculties were against, and only one Science student was in favour. A majority of students still felt they had to attend too many lectures, though in the Humanities faculties there was a slight tendency toward satisfaction with the course load, especially in Law. There was more support for tutorials over lectures in Intermediate year - 30 preferring tutorials, 1[illegible] lectures. There was a slightly greater tendency to ask questions in lectures in Intermediate year. Regarding study time, the majority in both years said they had 'enough', though the majority was smaller in Intermediate year, owing mainly to the Science students, who made a complete reversal - eleven to two saying they had enough study time in Preliminary year, eleven to two saying they had not in Intermediate year. In 1976, an approximately equal number said they wrote 'everything' in their lecture notes and only the 'important' things in their notes; in 1977 the vast majority (35 to 13) said 'just the important things'.

In the hostels, the majority still said there was too much noise, but in the Humanities the majority was smaller in 1977, while in Science it was larger. About the same numbers in both years had friends among the opposite sex. Finally, there was a greater tendency in 1977 to seek personal advice from friends or relatives rather than hostel wardens or teachers.

A last question was asked in the 1977 questionnaire which was not in the 1976 interviews: Are you a better student now than you were in your Preliminary-year? The vast majority said yes. The most important reasons they offered included (in order of importance) a better understanding of spoken English, better ability to use the library, writing better English and taking better lecture notes (these two were of equal importance), better idea of what the teachers expect, doing more reading, more interested in subjects, less afraid to ask questions. Reasons which the majority felt did not contribute to their being better students included help from their teachers, less full time-table, more study time, feeling more at home in the University, getting more help from friends, and having smaller classes.

Discussion

In general, these results suggest that the students in their second year were more confident - they had, after all, passed their Preliminary-year examinations - but somewhat more dissatisfied with the University programme than they were during the previous year. For example, they were more confident of their ability to understand lectures in English - and to some extent, this was justified by their test performance; more of them felt confident enough to write only the important things in lecture notes; more of them felt able to ask questions in lectures; they were happy with their subjects; and more of them preferred tutorials over the more anonymous lectures. At the same time, it would appear that their expectations were somewhat heightened, for they expressed more dissatisfaction: fewer of them liked Khartoum and university life; fewer of them went to the wardens for personal advice; more of them thought they hadn't enough study time; and more were dissatisfied with the teaching they received.

In their reasons for feeling they were better students in their Intermediate year, they emphasized language proficiency - understanding spoken English, taking better notes, reading, writing, asking questions - and saw as less important timetable factors - free time and smaller classes - or help from teachers and friends.

SUMMARY

1) The students made significant gains in English reading proficiency as a result of exposure to English medium lectures and reading.

2) There is evidence for a threshold level of proficiency necessary, but not sufficient for academic success.

3) A substantial number of students are still below a 'frestration' level of reading proficiency, but still manage to succeed.

4) The students in Intermediate-year are more confident of their ability to succeed.

5) They are also somewhat more critical of the University programme.

6) They consider language proficiency to be a major contributor to their success.

CHAPTER EIGHT

SUMMARY OF FINDINGS, RECOMMENDATIONS FOR ACTION, AND SUGGESTIONS FOR FUTURE RESEARCH

INTRODUCTION

The Study Habits Research Project was conducted at the University of Khartoum in order to describe study problems and student life, to provide data and advice on language and study problems, and to generate a concern for these problems. This, the last chapter in the Final Report of the Project, will be a summary of the findings, both of previous research and of the present tests and measures. The heart of the chapter is the group of concrete recommendations for action by University authorities. Nebulous suggestions such as 'there should be more communication between staff and students' will be avoided. The recommendations are based on factual data and in light of current trends and attitudes within the University (Chapter One might usefully be re-read in connection with this last Chapter). Making practical recommendations is no easy task, for many of the programmes and institutions which bear heavily on the problems discussed here are themselves in a state of change, independent of the present research and report. Nevertheless, the recommendations have been made with the expectation that they can be acted upon. This chapter will also include suggestions for future research, both as continuation of some of the present lines of investigation, and as initiation of some neglected here.

SUMMARY OF FINDINGS

Previous Research: Chapter Two

1. **Muwaffak al-Hamdani:** Ill-health is a problem for a large number of students; the most serious problem in the hostels is noise; problems in the classroom include a too-full timetable, notetaking, laboratory technique; library use is poor; homework is not habitual; reading is slow but accurate; students have problems with examination techniques. Dr Muwaffah would place a heavier burden for correcting these problems on the teachers.

2. Professor M. Macmillan: Notes a decline in school English standards owing to Arabicization; questions the relevance of the School Certificate English Examination to the needs of the University; among Preliminary-year students, he found more English errors in 'specialist' writing

than in writing for English classes; Science students made fewer 'specialist' errors than other faculty groups; on a placement test where a score of 90% or more indicated near-native English, the average among University of Khartoum Preliminary-year students was 52%.

3. John Swales: The general standard of English seemed not to have dropped substantially between 1963 and 1969, but the best students of 1969 were not as good as the best of 1963.

4. Mustafa Abdel-Magid: The consensus of school teachers and administrators suggests that English is needed primarily for world communication to maintain scientific, technical, and commercial ties; School Certificate English programme produces students with a literary bias, not competence in academic or Scientific English.

5. Study Behaviour: There is no clear evidence that 'good' study habits produce better achievement in university, but there is the suggestion that courses giving advice on study methods, combined with good teaching methods, can produce better students in the long run; there is evidence that different study methods are required for students in Arts and in Science; motivation has an effect on achievement and can be increased by teachers, especially through providing students with 'personal, proximate and precise' goals. There is evidence that sheer hard work and long study hours are related to achievement.

Language Testing: Chapter Four

1. The Reading tests suggest that the majority of Preliminary-year students in all faculties are reading in English at a 'frustration' level - that is, the university-level reading they are likely to be asked to do is too difficult for them. The situation in Science is not as severe as in the Humanities faculties, perhaps owing to the more technical nature of scientific reading, but even here, the vast majority of students still need help with their reading.

2. No significant difference was found between Preliminary-year and Fourth-year reading proficiency in either Arts or Science. This may suggest that the students in fact do very little reading in their university careers.

3. English Listening ability was markedly poorer in Arts and Science than in Law or Economics, though the scores in all faculties were low.

4. There were problems with the Arabic reading test, perhaps linked to a degree of acceptable alternatives in vocabulary greater than is the case in English.

5. Differences were found between students from urban and rural areas in their Arabic listening proficiency; dialect variation was given as a possible cause.

6. Students from the Southern Region, where English is used more outside the language classroom, were found to be better at English listening ability than their colleagues from other areas of the Sudan, but no better at reading English.

7. Women in Science were found to be not as good as the men in reading. This was probably due to a deficiency in Science background rather than English.

Success in University: Chapter Five

1. There appears to be a fairly large amount of carry-over among the various subjects in the Sudan School Certificate Examination, suggesting that there is a common element - possibly memorization. This also suggests that a student who is good in one subject is likely to be good in others.

2. There is a positive, significant relationship between performance on the School Certificate and performance on University examinations, but the relationship is not a very strong one - only about 8% of the overall variance in University performance was predicted by SSC performance.

3. Overall, SSC English was a better predictor of University performance - 19% of the variance was predicted by the SSC English paper.

4. The SSC Arts Stream examination was a very good predictor of University Arts performance - predicting 44% of the Arts variance.

5. Overall, English proficiency accounted for about 21% of the variance in University performance. In all faculties English was shown to be very important, either as a factor in the selection of students, or to ultimate examination results.

6. English proficiency was shown to be an important factor in success and it was suggested that a credit in English be required for admission.

7. The present research and that of A/Fattah (1977) suggest the presence of a strong rote-memorization factor in University performance, especially in Science. This perhaps helps students overcome deficiencies in English proficiency.

8. Overall, English listening ability is a slightly more important skill than English reading in Preliminary-year.

9. In Science, English listening is very important; in the Humanities, English reading takes on a slightly greater importance.

10. Arabic proficiency is an important factor in the Faculty of Law, but nowhere else.

Interviews and Diaries: Chapter Six

1. The students' social life is very dull and is a major source of discontent among students.

2. A principal complaint about hostel life is noise Some students say they have trouble sleeping.

3. Personal advice is more often sought from friends or relatives than from 'official' sources such as hostel wardens or teachers.

4. The majority of students are interested in politics and believe that students should take part in national politics.

5. A large proportion of the students are dissatisfied with University life in general and with the teaching they receive in particular. Nor are the majority highly motivated toward their studies.

6. The students typically rely on each other for academic help.

7. A too-full timetable is mentioned as a problem, but students do believe they have adequate study time.

8. Finding a place to study and finding books and materials for study were mentioned as a problem by a substantial number of students.

9. Problems with the lecture-tutorial system include students' difficulties with note-taking, few handouts, and preference on the part of students for tutorials rather than lectures.

10. The majority of students do not believe English proficiency is a problem in understanding lectures.

11. Overall, Arabicization in the University would not seem to be a popular notion among students.

12. There is evidence that a more personal approach to teaching is perferred by students.

13. The male students have a more academic orientation to University work, the females, a more social orientation.

14. Overall, the evidence suggests that the students have a capacity for hard work and long hours of study, but need direction and specific tasks and goals.

Eight Months Later: Chapter Seven

1. During the eight months between tests, the students made significant gains (though not especially large gains) in English reading ability (and probably in general English proficiency).

2. There is evidence for a 'threshold' level of English proficiency required for University study, and a 'native-like' ability is not needed. This level needs to be determined empirically, however.

3. The majority of students in the Humanities were still reading at a 'frustration' level and it is difficult to see how they could cope realistically with University-level reading.

4. Between Preliminary and Intermediate-year, there was a small decrease in general satisfaction with University life and with teaching.

5. On the other hand, there was evidence that the Intermediate students were more confident of their abilities and more highly motivated.

6. The vast majority considered themselves better students than in their Preliminary-year, and attributed this mainly to improved English ability and to improved study skills.

DISCUSSION

The above 42 'findings' suggest, first, that English language proficiency is a major problem for the Preliminary-year students. Those students who are best in English are also the students who do well in their University examinations. As long as English remains the medium of instruction in the University - and it is likely to remain so for some time to come - much consideration will have to be given to the English proficiency of the incoming students - both in selection procedures and in Preliminary-year courses.

The second suggestion of the findings is that there are potential problems of a linguistic and an attitudinal nature with Arabic as a medium of instruction in the University. The Arabic reading test data in particular suggest that there are problems of precision in the use of Arabic among the students - which is not in itself a bad thing but does require some consideration. There is certainly room for the study of the use of Arabic for academic purposes, and for the development of the teaching of Arabic as a second language for those students (and staff) who lack proficiency in it. This would seem to be an obvious first step toward Arabicization.

A third suggestion is that the full burden for success in University does not lie with the students and that reliance on 'remedial' courses in English or study skills may be somewhat over-optimistic. No educational objective can be achieved without good teaching. It is perhaps unfortunate that the title of the university teacher should be 'lecturer', for this seems to imply that his major job is to provide information to students, whose options are either 'sink or swim'. The main thrust of research into study behaviour is the suggestion that more important than 'good' study habits or 'remedial' language lessons is the approach of and care taken by the teacher to see that students are well-motivated, given precise tasks to perform, plenty of guidance in performing the tasks, and adequate 'feedback' on performance. In other words, the responsibility for academic excellence falls upon the lecturer as much as upon the student.

This thought leads to yet another suggestion, that there is a problem of staff-student communication in the University. Dissatisfaction among the students may be traced to dissatisfaction in their relationships with their lecturers. Students feel their lecturers care little about them personally, and seem to crave more personal attention such as may be found in tutorials. There is overwhelming dissatisfaction with University teaching. There is certainly room - as the Committee on Academic Reform indicated - for improved relations between the students and the teaching staff and administration.

Finally, the results of this research suggest that there are immense social problems for students to overcome when they arrive at the University. There are cultural differences as students from various and distant parts of the Sudan come together; there are coeducational problems; health problems; ordinary human problems of getting along with new people in a new environment. These problems present a challenge to the University, particularly involving the Students' Union and the Students' Affairs Section. Certainly, steps are being taken by the latter organization to enrich social, personal, and recreational life among the students. Obviously, more can be done. The problem of re-establishment of a Students' Union is a complex and subtle issue, but clearly, positive steps must be taken towards the goal of an active, influential, and broadly-based Students' Union.

The above discussion of the major emphases of the Study Habits Research findings is very general and vague. Concrete proposals for following up the suggestions must be made, and shall be in the following section. However, no research findings, no recommendations for action can have any force, any hope of success unless those concerned - in this case, the administrators, teachers, and students who make up the University and those outside the University who have a stake in its excellence - unless these people are convinced of the need for improvement, no research findings can be of much practical use. We must all ask ourselves if we are satisfied with the job we are doing as students, teachers, policy makers. Are our graduates making as effective a contribution to Sudanese national development as they might? Are they able to enter into employment at a level justified by the time and money and energy invested? Are students satisfied that they are able to take sufficient advantage of the opportunity offered them, of the expertise and experience of their teachers? Are we teachers satisfied that we do justice to our students in helping them to reach the highest level of development of which they are capable? These are the serious questions with which this Research Project is involved at root. They are not easy questions. But if, in fact, we are not satisfied - we teachers, students, and administrators - then this research can offer a small start in the task of adjusting our approaches, skills, goals, and methods - until we are satisfied.

RECOMMENDATIONS FOR ACTION

I. Arabic

The future of education at the University of Khartoum lies with Arabic-medium instruction. How far in the future remains to be seen. Nevertheless, steps must be taken now to prepare the way for Arabicization.

1. Arabic language research should be undertaken, possibly by an 'Arabic Language Unit', initially within the Department of Arabic or the Department of Translation, perhaps in collaboration with the Khartoum Institute for the Preparation of Teachers of Arabic as a Second Language. The purpose of the Unit should be the investigation of such topics as the academic register of Arabic, its potential for use in various disciplines, the various Sudanese varieties of Arabic and their mutual intelligibility in different mediums, methods for teaching Arabic as a second language to non-Arabic speakers, academic Arabic in other countries, student attitudes toward Arabic in the University, its success in Departments where it is used as a medium. Thought must be given, too, to the place of the University of Khartoum, as a national university, and its relation to the new Universities of Gezira and Juba. This would involve gathering data on the attitudes and aspirations of the various non-Arabic speaking groups of the Sudan. The question of Arabicization in the University of Khartoum must be approached in full consideration of the consequences in light of national educational, language and political policies.

2. The use of Arabic by lecturers who feel they could lecture in it, to students who are competent in it, should be encouraged by Senate as University policy. The Arabic-medium courses currently being offered in the Departments of History, Philosophy, Teaching Methods, and Shari'a serve as examples, but a much broader experience could be gained. This proposal presents a difficulty, of course, where there exist courses taught by different teachers, one of whom might prefer to teach in Arabic, the other not. Such problems would need to be considered carefully by those involved. However, the institution of the Course-Unit system will help here, especially in the examination structure, which would allow a course-unit taught in Arabic to be examined in Arabic, and vice versa. This Arabic-medium teaching could provide invaluable input to the research unit proposed above, which would also be a source of advice on the use of Arabic in various disciplines.

II. English

As the present medium of instruction in the University, as an historically important language in the Sudan, and as an important world language, English must continue to be given serious attention in the University Programme. After Arabicisation has begun, the needs for English competence will be even more specialised and acute than they are now.

1. A 'credit' in English on the Sudan School Certificate, or equivalent, should be a requirement for admission to the University in all faculties, as long as English remains the primary medium of instruction in the University. Allowance should continue to be made, certainly, for the brilliant student in History or Biology, for example, who was nonetheless deficient in English. However, such cases will be few in number (as shown by the strong relationship of School Certificate English to the rest of the School Certificate results). This 'credit' should be a prerequisite to admission and not a part of the 'boxing number' system.

2. Preliminary-year teaching of English in the University should be the responsibility of a single body, perhaps a somewhat expanded English Language Servicing Unit. The goals of such a Unit would be two-fold:

a) To ensure that the English standards of all students were up to an acceptable standard (which might entail teaching past the Preliminary-year in many cases);

b) To provide special courses beyond the minimum level, where the students required such services, for example, in the preparation of scientific and technical reports, in the writing of honours dissertations or postgraduate theses, or in preparation for study in foreign English-speaking universities.

This 'English skills' teaching would certainly have to be carried out after the Preliminary-year.

This recommendation would include the Preliminary-year teaching now done by the Department of English in the Faculty of Arts and that of the Department of English in the Faculty of Education. Thus, a clear distinction should be made between the teaching of English as a skill, i.e., the work of ELSU, and the teaching of English as a subject, i.e., the work of the Department of English. It is primarily through the graduates in English from the Faculties of Arts and Education that the University can most affect the English teaching in the schools, and it is of great importance that these graduates should be of a high standard, both in the communicative use of English and in its study as a subject.

A consequence of this recommendation, at least as far as the Faculty of Arts is concerned, is that Honours graduates in English Language who were accepted as teaching assistants, would be most likely to find themselves employed in the English Language Servicing Unit before going on for further studies. This being the case, it is likely that the Unit would have to have a closer contact with the English Department in planning the English Language Honours curriculum than is now the case. It seems essential for the future of English teaching in the University that young Sudanese teachers be developed in the tradition of teaching English as a skill for specific purposes and that ELSU not become a perennial expatriate preserve, no matter how well-trained and dedicated the expatriates may be.

III. The Preliminary Year

The new students' first days at the University greatly influence their attitudes and habits for much of the rest of their University careers. Thus, it seems important to provide for them an orderly, well-organised start to the academic session. The fact that the University of Khartoum has a Preliminary-year must be taken full advantage of and these students treated as a group who are learning the 'ropes' of academic life.

1. An effort should be made to have the Preliminary-year students on campus at least a week before the older students arrive. During this period, which might be designated 'Preliminary-year Orientation Week', they should be given in each faculty an introduction to University life, including a tour of the facilities (such as the library, the computer centre, and the various administrative offices

with which they will have to deal), and an explanation of the University 'system' of lectures, tutorials, and practicals, and the timetable. The new students should be told what materials they will need such as notebooks, drawing instruments, etc., and be given their textbooks. Their timetables should be prepared and their tutorial groups assigned. Certainly, all of this is easier said than done. Its implementation involves action on at least three fronts: the Admissions Office in selecting and notifying the new students (which in turn depends upon the receipt of Sudan School Certificate results); the various faculty registrars and Preliminary-year teachers in organising the timetables and the orientation sessions; and the University Library and other units in organising the tours (e.g., see Recommendation IV.2).

2. A group of Preliminary-year Advisors should be set up in each faculty, comprising those lecturers involved in teaching the Preliminary-year. The Advisors should each be responsible for a group of students, and their duties should be specified. For example,

a) helping the students work out their timetables so that they have the permissible subject combinations and/or options, and that their various tutorial groups do not clash;

b) conducting discussion sessions during the students' 'Orientation Week' to inform the new students of faculty regulations, the location of various offices, libraries, etc., the lecture-tutorial or course-unit system and its workings, the materials they will need to purchase, the textbook distribution system;

c) assigning the students to their tutorial groups, in cooperation with the faculty Registrar or time-table officer;

d) making themselves available at specified times and as needed to help the students with academic problems and administrative matters.

All this would, of course, necessitate a clear statement of the faculty regulations regarding requirements and course combinations to enable advisors to help the students.

IV. Study Skills and Resources

The University should take the initiative in providing the new students with an adequate introduction to their new life at University.

The transition from school to university is a difficult one and the students, no matter how willing, need guidance and resources of an academic nature. Nevertheless, this guidance can at best be only indirect - the responsibility for developing and using study skills must lie ultimately with the student.

1. All faculties should offer to their entering students a course in study skills, especially relevant to the needs of the students. These skills include note-taking, the use of relevant reference materials and library facilities, examination techniques, and an overview of the type and quality of work expected. These courses might need last only a few hours, or perhaps a semester, depending upon the amount of work considered necessary in the faculty. They might last longer in Arts than in Science, for example. The services of the English Language Servicing Unit might be drawn upon in preparing the courses, but they should be in addition to, not a part of, the English language course. There is no need, in fact, for the study skills courses to be related to English primarily at all, since what should be taught is awareness of techniques and skills the students could make use of in all their subjects immediately.

To be most effective, these study skills courses should be developed and taught with the fullest possible participation of the subject teachers of the faculties, to ensure that the content of the courses be relevant to the needs of the students, the expectations of the lecturers, and the facilities available in the faculty and the University. A 'functional' approach is thus recommended: the courses should not be aimed so much at developing 'good' study habits among the students as toward informing them of the actual work expected and necessary for them to do, and of ways of doing it. This, in turn, will necessitate members of staff considering what they require of their students, in tangible, specific terms, during the semester. Again, this might best be done in consultation with the ELSU staff.

2. An Orientation Course, or Tour, should be provided by the University Library, in connection with the 'Preliminary-year Orientation Week'. This might take the form of one-hour tours of the Main Library, conducted by members of the Library staff, for groups of perhaps 30 students at a time. The purpose of the tours should be to explain the use of the cataloguing system, in both Arabic and English, the various subject sections of the Library, the reference materials in various subjects, the periodicals, the Sudan Library, the reserve book system, borrowing facilities and regulations. The tour/course could be varied to meet the needs and interests of various faculty groups, in collaboration with Preliminary-year Advisors. Similar courses could be

developed for the various Branch libraries. The Library Tour might also include a short series of exercises requiring the students to locate various bits of information and so actually use the facilities they had been shown. This sort of activity might be developed in liaison with the English Language Servicing Unit.

3. Adequate provision of textbooks must be undertaken by each faculty. To provide facilities enabling the faculties to carry out their responsibilities in this regard, a University Textbook Committee should be set up, comprising representatives from the faculties, the University Bookshop, the University Financial Section, and perhaps the Bank of Sudan Foreign Exchange Section. Once the machinery for purchasing new books is functioning, stocks of textbooks should be built up in each faculty for distribution to the students as needed. The goal should be one copy of each required text for each student. A system of control should be developed in each faculty textbook library for distributing and collecting the books. Perhaps the example of the Faculty of Law could profitably be followed here.

V. Teaching

No consideration of Study can be complete or practical without a consideration of Teaching. It is a world-wide phenomenon that university lecturers are in large measure untrained as teachers. They are frequently research scholars who find themselves faced with teaching. Most, of course, welcome this and perhaps even regard it as their primary duty. Yet, their past experience has done little to prepare them for facing a lecture hall full of students. There are also at the University of Khartoum the special cases of the teaching assistants, who at present fill in a year or so doing some perhaps desultory teaching while waiting to begin work on an advanced degree, and of the numerous expatriate lecturers, who may or may not be experienced and who may or may not have much awareness of Sudanese culture. At the University of Khartoum, teaching is a major source of student dissatisfaction.

1. A University Teachers' Journal should be established to facilitate the communication of information about teaching problems and solutions, from both internal and external sources, such as the 'Memos' published by the Center for Research on Learning and Teaching, of the University of Michigan, or the Teaching Methods Unit, of the University of London. The existing Forum publication of the School of Extra-Mural Studies might fulfill this function, given a broader base of support. A committee might be formed, perhaps under the Vice-Chancellor's Office, to solicit and commission articles for the Journal pertaining to such matters as teaching methods, Sudanese culture as it relates to the University, student and staff profiles, science teaching programme, language laboratories.

study skills courses in other Universities, and the results of research into these areas at the University of Khartoum.

2. A University-wide programme of student-evaluation of courses should be set up, possibly under the auspices of the Psychology Department, to monitor periodically, perhaps at the end of each semester, student opinion of courses they had attended. This is a fairly wide-spread practice in American universities, has also been introduced in such institutions as the University of Dar-es-Salaam, and several models of student evaluation can be studied. In our own case, it should be kept on a small scale and fairly simple to begin with. A two-year pilot programme might be set up within a single department such as Anthropology and Sociology, Psychology or the English Language Servicing Unit, so that the evaluation instrument, its analysis and use of the results could be worked out and perfected.

The purpose of the programme would be three-fold:

a) to provide the lecturers with some 'feed-back' on their performance and the content and relevance of courses (in addition to examination results, of course, which provide a different kind of feed-back);

b) to provide the students with an outlet for their feelings and a sense of purpose and contribution to the University programme;

c) to provide departments and faculties with feed-back on their policies and curricula.

These evaluations could be as confidential as required. However, if such a programme is to be effective, not only must the evaluations be used, they must be *seen* to be used. This is done best by institutional means. Thus, the evaluations should be discussed in Heads of Departments meetings and so filtered down, again, confidentially, to lecturers, with recommendations for changes.

3. Each faculty should provide a short course on teaching methods and duties for its new teaching assistants. This could be perhaps a one- or two-day session at the beginning of the academic year to give the new assistants guidance and practice in speaking to a group, writing on the blackboard, marking, keeping records, etc. In other words, they should be told in specific terms their duties and responsibilities. The mini-course might include some peer-teaching and self-evaluation. The fairly modest goal should be to give the assistants an awareness of their job, some practice in the 'tricks of the trade', and some capacity for self-criticism as a teacher. The 'instructors' for these courses should be experienced and

interested lecturers in the faculty concerned. Possibly, a team of lecturers might present this teaching assistants' orientation course. Such a system would involve several members of the faculty, each with responsibility for a portion of the course. It is not unlikely, too, that such a system would have the valuable 'backwash' effect of making the older, more experienced teachers aware of just what it is they do before a group of students, and more thoughtful about their own techniques and approaches.

VI. Social Life

Much of the dissatisfaction on the part of students stems from their rather dull and scanty social life. This is, of course, linked in part to the dissolution of the Students' Union and Societies, owing to the perhaps inordinate preoccupation of the Union with politics. The re-establishment of the Union admits of no easy solution, but more than that, the whole question of the involvement of the students in the life of the University institutions must be dealt with.

1. A Select Committee of students, teaching staff and administration should be formed by Senate to seek a solution to the Students' Union impasse. Such a Committee might begin on a small scale and expand its membership and brief as the problems were aired and dealt with. Its initial brief should be to discuss the problems of re-instituting the Students' Union and to recommend to Senate proposals for discussion by an expanded Committee. From this expanded Committee would come proposals for the re-instatement of the Students' Union.

2. The Students' Affairs Section should continue its initiatives in expanding its welfare, social and sports functions among the students. The 'Student Handbook', at present a stencilled information guide, could usefully be expanded to contain information on all facets of student life outside the classroom. Students should be co-opted onto a 'Handbook Committee' to aid in deciding the contents of the booklet. Such a publication could be a useful source of information and comfort for the new students.

RECOMMENDATIONS FOR FURTHER RESEARCH

The penultimate recommendation is that a Research Committee be formed to act as a 'clearing house' and in an advisory capacity for further research into the study problems of students. A grant might be obtained from the Ford Foundation, of perhaps £S 2000, to be administered by the committee. The money would be available to finance small but well-conceived research projects by members of staff or honours or postgraduate students. The projects so funded should be related to the study problems of our students, and could represent a wide variety of disciplines. The Committee itself might be chaired by Mrs. Angele Tadros of the Economics English Section of the English Language Servicing Unit, and might comprise representatives from such Departments as Arabic, English, Linguistics, Psychology, Anthropology and Sociology, and Education. The results of these projects could be made available to the University at large through the Forum publication referred to in Section V.1. above, or through a newsletter produced by the Committee.

If this research project has shown anything it is the complexity and breadth of the question of Study Habits. At the outset it was stated that this project would be only a scratch on the surface of the problem. It has in fact produced more questions than it has answered - there is nothing in this to be ashamed of. What would be shameful is if the inadequacies of the present research and recommendations were pointed to and then ignored and forgotten, used as an excuse for inaction. Where I have missed the mark, let others correct me, where I have left gaps, let them be filled in. The University of Khartoum is full of expertise, well-trained and experienced researchers, honours and postgraduate students eager for research suggestions. Such suggestions are to be found in the body of this Report. Research-minded scholars and supervisors of honours and postgraduates are asked to peruse Chapters Two, Four, Five, Six, and Seven for these research suggestions.

A final recommendation is that a Symposium should be held at the University of Khartoum at the beginning of the 1978-79 academic year for the purpose of discussing this report, its implementation, and research carried out as a result of it. The Symposium might be organized by the Project Steering Committee or by the proposed Research Committee and should be open to all interested staff and students and the present research fellow. A small Ford Foundation grant might be obtained to finance the Symposium.

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APPENDIX A

Research into Student Study Habits in their First Two Years at the University of Khartoum

A PROPOSAL

A. We propose that there should be a soundly-based and thorough investigation into the way students study in the University, especially into the methods of study generally adopted by students in their first two years.

B. We believe that such an investigation would be valuable for the following reasons:-

(1) The University appears at this moment of time to be going through a period of creative evolution, and we would like to think that the new thinking about degree courses will be matched by new thinking about how the students can develop more effective ways of study.

(2) We share the concern to enrich the students' environment but a prerequisite for this seems to be a more efficient use of student study time.

(3) There appears to be a feeling amongst many members of the University that student performance in the first two years is particularly unsatisfactory, and it is at least probable that weaknesses in study methods are part of the explanation of this phenomenon. However, it seems to us that the University needs to have more information before it can be reasonably expected to take specific measures to improve student study skills. Although there is a fund of perceptive intuitive comment on how students approach their academic work, there are, so far as we know, only two directly relevant substantial documents: the questionnaire-based research of Dr Mua[illegible]fik El-Hamdani in 1965, and the paper by Professor MacMillan 'Some Aspects of Bilingualism in University Education' (1967). We note that both these studies were done quite some years ago.

Therefore, we suggest that much more could profitably be discovered about student attitudes to their work and about the types of learning 'style' that they do - and could - adopt. It seems to us that we are not even sure what are proper questions to ask. For instance, Do the lecture-system, weakness in English and proven capacity for rote-learning all combine to produce a type of student that the University is fundamentally unhappy with, but is increasingly willing to settle for? 'Is it possible to identify methods of study that are best suited for the typical entering student, and if so, how can they be brought into wider use?'.

C. However, we also believe that the piece of 'action research' we are proposing will only be effective if it is carried out in an open atmosphere of co-operation and goodwill. Specifically, if, amongst other things, the research work indicates that there might, with advantage, be changes made in certain aspects of the teaching and testing in the University, there must be some likelihood that any suggestions made would receive open-minded and serious consideration.

D. Our more detailed proposals are as follows:-

(1) The bulk of the research is to be done by a temporary Research Fellow from outside the University. However, it is hoped that the person appointed will work on a number of joint projects and experiments with members of staff of the University, and that he will be able to employ on a part-time basis a number of research assistants, most probably from the Faculty of Education.

(2) We understand that the Ford Foundation is willing to consider funding this project so that the University will not be liable for any financial expenditure.

(3) We fully support the Vice-chancellor's proposal that the Research Fellow should be attached to the Graduate College. This will allow him to operate freely across Faculty Boundaries and will give flexibility with regard to the lines of research enquiry he wishes to follow.

(4) The Research Fellow will be asked to work to some such brief as the following:-

> to describe actual student study behaviour as at present, assess its causes, and evaluate its strengths and weaknesses; to make a series of recommendations with an estimate of what each might involve in terms of curriculum development, dis-location, staff re-orientation, expenditure, etc.; to work with a number of interested staff members on pilot projects;

to make available to the staff information about techniques of learning and teaching found to be successful (and unsuccessful) in comparable educational institutions.

(5) The Research Fellow should be encouraged to elicit submissions, comments and ideas from all members of the University, but he would be expected to liase closely with the following:-

(a) The Student Affairs Office
(b) The Deans of the Preliminary Year
(c) The Students' Union
(d) The Library
(e) The English Language Servicing Unit
(f) The Committee for Academic Reform
(g) Any member of staff with specialised knowledge of traditional and general attitudes to learning in the Sudan, educational practices in the schools, cultural values, etc...

(6) We believe that this work could be done in one calendar year.

(7) We also propose that a small Steering Committee should be set up to help the Research Fellow carry out this important research. The members of this Committee might be the following:-

The Dean of the Graduate College
The Dean of Students
The Head of the Department of Linguistics
The Director of the English Language Servicing Unit
A representative of the Faculty of Education

(8) We estimate that the budget for the proposal would amount to approximately $31,000 and would cover the salary, benefits, housing and travel of the Research Fellow, as well as related research expenses.

John Swales	Mahmoud Abdalla Ibrahim
Director, English Language Servicing Unit	Dean of Students

APPENDIX B

DIARY OF ACTIVITIES OF RESEARCH FELLOW, 1976 - 1977, IN ADDITION TO RESEARCH

January - September 1976	Teaching Preliminary Scientific English; Preliminary Archaeology; Honours Part 1 General Linguistics.
	Contributed Working Paper to Faculty of Arts Arabicization Sub-Committee.
September 1976	Contributed to Writing of English Placement Test, Faculty of Arts.
October 1976	Questionnaire on Reading Preferences, Faculty of Arts Library.
1 - 3 November 1976	Presented Paper on Study Habits Research Project at Graduate College Workshop on Research Methodology, Khartoum.
11 - 16 November 1976	Ford Foundation Consultant to American University in Cairo.
29 January - 10 February 1977	Ford Foundation Consultant to University of Jordan, Amman.
October 1976 - May 1977	Teaching Honours Part 1 Linguistics.
May - June 1977	Wrote Syllabus for Proposed Study Skills Course, Faculty of Arts.

APPENDIX C

THE FACULTY OF EDUCATION

No research was conducted at the Faculty of Education during the course of this Project. The Faculty is located in Omdurman, several miles from the main campus and its problems and goals are somewhat different from those of the rest of the University. Yet, there are similarities.

Students are selected for the Faculty by the same procedure as are the rest of the students, i.e., through the University Admission Office, the criteria for selection being School Certificate results and student preference. The Faculty of Education is not a 'popular' one and its students tend to be of slightly lower calibre than those of other faculties. As an incentive, to boost the teaching profession, students of the Faculty of Education all receive bursaries from the Ministry of Education of about £S 18 per month, ten of which goes to the University, eight to the student for his personal use (many of the students send money to their families, for example). The intake each year is about 160 students, around half in the Science Section, half in the Arts Section.

The course is of four years. During the Preliminary-year, the student must do five courses - Education, Arabic, English or French, and two others such as History, Geography, Physics, Chemistry. About 65 of the 75 Arts students opt for English in Preliminary-year. All Science students do Scientific English. The Arts English course is staffed by the Faculty of Education Department of English which is also responsible for all English language and literature teaching in the Faculty. The emphasis in Preliminary-year is on improving the students' command of the language with literature as an instrument for this purpose. However, at present, the English Department is very much understaffed - there are only two full-time lecturers and a teaching assistant. The Scientific English course is taught at present by two members of the English Language Servicing Unit who drive the six or seven miles from the main campus three days a week.

There is a language laboratory at the Faculty of Education, used now exclusively by the small French Department. The English Department has hired an English lecturer to develop the laboratory for English teaching but he had not yet arrived at the time of writing (October 1977).

The English teaching problem at the Faculty of Education is similar to that of the Faculty of Arts - the Department is professionally geared toward teaching about English - grammar and literature - rather than toward increasing proficiency. It is likely that the same need for increased English proficiency is required in Education as in the other faculties where the bulk of instruction takes place in English. Possibly the English Language Servicing Unit could extend its work to include the Arts Section of the Faculty as well as the Science section to bring the students' English proficiency up to an acceptable functional standard.

APPENDIX D

STAFF QUESTIONNAIRE

In April, 1976, a questionnaire was developed for distribution among members of the University teaching staff. The purpose was to elicit data on staff opinions concerning student problems. The data was to be used as a guide in forming research priorities and approaches.

The questionnaire contained two sections: a four-item section on the language proficiency of the lecturer, and a 35-item section asking for opinions about student problems and behaviour and teaching problems. The questionnaire could have been completed by respondents in about ten minutes.

A ten percent random sample of teaching staff (including teaching assistants) was selected (N=67) and the questionnaire was sent, by name, with an explanatory letter and instruction for completing and returning it.

Initially, thirteen of the questionnaires were returned. A follow-up letter was sent, but no further responses were received. It was not considered worthwhile analysing this small proportion of responses.

APPENDIX E

Student Affairs Section
University of Khartoum
10 July 1976

Subject: Study Habits Research Project

Dear ______________________________

The University of Khartoum is conducting a research project this term to find out about the problems of Preliminary-year students. The purpose is to help students in the future to get more out of their studies.

You have been selected to help with this research. One hundred of your classmates will be working on the Project, as well. In return for your help in giving us information about your life in the University and your ability as a student, you will receive a gift of £2.50 - if you participate in all of the activities of the Project. These will not take more than an hour a week during the term.

You are required to attend a meeting with 100 other Preliminary-year students:

FRIDAY 16 July at 10.00 a.m.
in the Examination Hall.

The meeting will last for one hour and at the end of it you will receive the first part of your £2.50. The Project will be explained at this meeting. You are required to attend.

This Research Project is something new in the University of Khartoum, and we look forward to working with you.

With thanks,

Dan Douglas
Research Fellow
Study Habits Research Project

مكتب شئون الطلاب
جامعة الخرطوم

١٩٧٦/٧/٢

الموضوع:- بحث عادات الدرس والتحصيل

السيد /........................=

تقوم جامعة الخرطوم فى هذه الفتره ببحث من المصاعب التى يعانيها طلبة السنه الاولى الهدف من هذا مساعدة الطلاب فى المستقبل ليفيدوا أكثر من الدروس التى تلقى عليهم هنا.

لقد وقع الاختيار عليك لتساعد فى هذا البحث سيقوم مائة طالب من زملائك بالمشاركه فى هذا البحث فى مقابل اعطاء المعلومات الخاصه بحياتك فى الجامعه وعن قدراتك كطالب ستنال مبلغ ٥٠٠ر٢ هذا اذا شاركت فى كل النشاطات الخاصه بالبحث. ولن يكلفك ذلك اكثر من ساعه واحده كل اسبوع خلال الفتره الحاليه

سيكون عليك ان تحضر اجتماعا مع مائه طالب من السنه الاولى

يوم الجمعه ٧٦/٧/١٦
قاعة الامتحانات
الساعه ١٠ صباحا

يستمر الاجتماع حوالى ساعه فى نهايتها يتم دفع القسط الاول من مبلغ ال ٥٠٠ر٢ سيتم فى هذا الاجتماع شرح البحث المطلوب منك

هذا البحث يعتبر جدنا جديدا فى جامعة الخرطوم ونحن نتطلع لمشاركتك لنا

وشكر ....

دان دوجلاس
باحث/ بحث عادات الدرس والتحصيل

APPENDIX F

STUDY HABITS RESEARCH PROJECT

University of Khartoum

This is a Reading Test - part of the Study Habits Research Project being conducted at the University of Khartoum this year. The information gained from tests like this one will be used to benefit other students in future. Please sign your name on this test paper - but the results in no way affect your marks in your subjects. The test is for information only.

NAME ______________________________

INSTRUCTIONS:

You will see that 50 words have been left out of the reading passage. Numbered lines are in the places of the missing words. On the line you are asked to write the word you think has been left out - the same word the author might have used.

All the lines are of the same length, but some of the words are long, some are short. Some words might be abbreviations (like etc., m. or e.g.); some might be numbers; some might be part of a hyphenated word (like (full-time); the missing word might be part of a scientific formula (like $H_2 + \underline{3O_2}$).

DO THIS SAMPLE TEST:

Tom awoke and got out of 1. ____________. He looked out of the window 2. ____________ saw that the sun was 3.____________, the birds were singing, and the 4. ____________ were moving in the breeze. He 5. ____________ that this would be a good day.

You should work as quickly as possible - do the easy words first and return to the harder ones later. You will be told when the time is half gone.

Remember: there is only one word for each numbered line, and there is a word for each line. Try to complete all the items.

PLEASE WRITE CLEARLY.

Are there any questions? Now turn the page and begin.

TO HELL WITH CULTURE

From Read, H. (1963) To Hell With Culture and Other Essays.
London: Routledge, Kegan Paul. pp. 10-11.

The cultured Greeks, it seems, had no word for culture. They had good architects, good sculptors, good poets, just as they had good craftsmen and good statesmen. They knew that 1. __________ way of life was a good 2. __________ of life, and they were willing 3. __________ necessary to fight to defend it. 4. __________ it would never have occurred to 5. __________ that they had a separate commodity, 6. __________ - something to be given a trademark 7. __________ their academicians, something to be acquired 8. __________ superior people with sufficient time and 9. __________, something to be exported to foreign 10. __________ along with figs and olives. It 11. __________ even an invisible export: it was 12. __________ natural if it existed at all - 13. __________ of which they were unconscious, something 14. __________ instinctive as their language or the 15. __________ of their skins. It could not 16. __________ be described as a by-product 17. __________ their way of life: it was 18. __________ way of life itself.

It was 19. __________ Romans, the first large-scale capitalists 20. __________ Europe, who turned culture into a 21. __________. They began by importing culture - Greek 22. __________ - and then they grew autarkic and 23. __________ their own brand. As they extended 24. __________ empire, they dumped their culture on 25. __________ conquered nations. Roman architecture, Roman literature, 26. __________ manners - these set a standard to 27. __________ all newly civilized people aspired. When 28. __________ Roman poet like Ovid talks about 29. __________ cultured man, there is already the 30. __________ of something polished, refined, a veneer 31. __________ the surface of an already rough 32. __________. It would not have occurred to 33. __________ refined Roman of this sort that 34. __________ craftsmen of his time had any

35. __________ to make to the finer values 36. __________ life. Nor had they - Roman pottery 37. __________ example, may be cultured, but it 38. __________ dull and degraded.

Culture, we are 39. __________ went underground in the Dark Ages, 40. __________ it was a long time before 41. __________ came to the surface again. The 42. __________ epoch, known as the Middle Ages, 43. __________ rivalled only by the Greek Age; 44. __________, oddly enough, it too was not 45. __________ of its culture. Its architects were 46. __________ builders, its sculptors were masons, its 47. __________ and painters were clerks. They had 48. __________ word for art in the sense 49. __________ our 'fine arts'; art was all 50. __________ was pleasing to the sight: a cathedral, a candlestick, a chessman, a cheese-press.

Scoring Sheet

Culture

1. their
2. way
3. if
4. but
5. them
6. culture
7. by
8. by
9. money
10. countries
11. wasn't
12. something
13. something
14. as
15. complexion
16. even
17. of
18. that
19. the
20. in
21. commodity
22. culture
23. produced
24. their
25. the
26. Roman
27. which
28. a
29. a
30. sense
31. humanity
32. a
33. the
34. the
35. contribution
36. of
37. for
38. is
39. told
40. and
41. it
42. next
43. is
44. but
45. conscious
46. foreman
47. illuminators
48. no
49. of
50. that

OXYGEN

From Sienko, J.J. and R.A. Plane (1966) Chemistry. New York: McGraw-Hill pp. 333-334.

The element oxygen, atomic number 8, has two 1s, two 2s and four 2p electrons. Except for fluorine, it is more electronegative than any other element and forms compounds with all elements except some of the noble gases. The study of oxygen compounds has 1.__________ important in unraveling the chemistry of other 2.__________. One of these compounds, water, is 3.__________ most important reaction medium in chemistry.

4.__________ is by far the most abundant 5.__________ in the earth's crust, on a 6.__________ of both mass and number of 7.__________. Of the mass of the earth's 8.__________, 49.5 per cent is due to 9.__________ atoms. Silicon, the next most abundant, 10.__________ only half as plentiful. On a 11.__________ basis, oxygen atoms are more numerous 12.__________ all other kinds of atoms combined.

13.__________ the free state, oxygen occurs in 14.__________ atmosphere as O_2 molecules. Air is 15.__________% oxygen by volume; i.e., for 16.__________ 100 molecules in air, approximately 20 17.__________ oxygen. On a mass basis, air 18.__________ 21% oxygen; for every 100 19 __________ of air, approximately 21g is 20.__________.

In the combined state, oxygen occurs 21.__________ in many minerals, plants and animals, 22.__________ water. Of the oxygen-containing minerals, 23.__________ most abundant are ones which contain 24.__________. The simplest of these is silica (25.__________), the main constituent of sand. The 26.__________ abundant mineral that does not contain 27.__________ is lime stone ($CaCO_3$). In plant and 28.__________ material, oxygen is combined with carbon, 29.__________, nitrogen, or hydrogen.

The industrial sources 30.__________ oxygen are air and water. From 31.__________, oxygen is made by liquefaction and 32.__________ distillation. Air, consisting by volume of 33.__________% oxygen, 78% nitrogen, and 34.__________% total of argon, neon, carbon

35. ____________, and water, if first freed of 36. ____________ dioxide and water, compressed, cooled, and 37. ____________ until liquefaction results to give liquid 38. ____________. On partial evaporation, the N_2, being 39. ____________ boiling, boils away first, leaving the 40. ____________ richer in O_2. Repeated cycles of 41. ____________ kind give oxygen that is 99.5 42. ____________ cent pure.

From water, very pure 43. ____________ can be made by electrolysis as 44. ____________ by-product of hydrogen manufacture. Power 45. ____________ makes electrolytic oxygen more expensive than 46. ____________ obtained from air.

In the laboratory, 47. ____________ is usually made by the thermal 48. ____________ of potassium chlorate, $KClO_3$. The reaction 49. ____________ $(s) \longrightarrow 2KCl\ (s) + 3O_2\ (g)$ is catalyzed 50. ____________ the presence of various solids such as manganese dioxide (MnO_2), ferric oxide (Fe_2O_3), fine sand or powdered glass.

Scoring Sheet

Oxygen

1. been
2. elements
3. the
4. oxygen
5. element
6. basis
7. atom
8. crust
9. oxygen
10. is
11. number
12. than
13. is
14. the
15. 20
16. every
17. are
18. is
19. g
20. oxygen
21. naturally
22. and
23. the
24. silicon
25. SiO_2
26. most
27. silicon
28. animal
29. sulfur
30. of
31. air
32. fractional
33. 21
34. 1
35. dioxide
36. carbon
37. expanded
38. air
39. lower
40. residue
41. this
42. per
43. oxygen
44. a
45. consumption
46. that
47. oxygen
48. decomposition
49. $2HClO_3$
50. by

APPENDIX G: ARABIC READING TEST

هذا الاختبار فى القراءه الصامته جزء من بحث خاص بعادات الدرس والتحصيل يتم هذا العام بجامعة الخرطوم..... المعلومات المستقاه من اختبارات من هذا النوع ستستخدم ليفيد منها طلاب الجامعه فى المستقبل .... لا تكتب اسمك على هذه الورقه من فضلك واعلم ان نتيجة هذا الاختبار لن تؤثر عليك بأى صوره من الصور فالغرض من الاختبار الحصول على معلومات تفيد فى هذا البحث.

أكتب من فضلك العلوم التى تدرسها هذا العام:

١.

٢.

٣.

تعليمـــــات

هذه قطعة للقراءه الصامته ......لاحظ انه قد تم حذف خمسين كلمه من هذه القطعه ووضعت نمر فى الاماكن الفارغه .....المطلــوب منك أن تملأ المكان الفارغ فى كل مرة بكلمة واحدة مناسبه تعتقد انها كانت فى القطعه

ملحوظه :

بعض الكلمات المحذوفه قصيرة ومكونه من حرفين مثل "ان" وبعضها طويل ومكون من أكثر من حرفين........لا توجد كلمه من حرف واحـد

مثال :

املأ الأماكن الفارغه فى القطعه التاليه بكلمات مناسبه :

استيقظ محمد من نومه ونهض "١" ____________ فراشه ليفتح
النافذه حتى يسمح بدخول ضوء "٢" ____________ الى غرفتــه

وقف لحظة يمتع بصره بمنظر "٣" ______________ الطريه فى الحديقه وهى تتمايل مع هبات "٤" ______________ والعصافير المغرده وهى تطير من غصن الى "٥" ______________

تنبيه :

عليك ان تعمل بأسرع ما يمكنك ______ املاء الأماكن السهله اولا ثم أرجع للا صعب فيها بعد ٠

تذكر:

كلمة واحده فقط فى كل مكان فارغ٠٠٠٠أى أنك ستكتب خمسين كلمه ٠ الزمن : ٢٥ دقيقه

ان لم تفهم المطلوب يمكنك أن تطرح أى سؤال قبل أن تبدأ الاجابه ٠

غريب فى وطنه

سافر أبو القاسم الشابى فى الحادية عشرة من عمره تقريبا من بلدته "الشابيه" احدى ضواحى مدينة "توزر" بجنوب تونس الى مدينة تونس العاصمه ليطلب العلم بجامع الزيتونه وهو أكبر معهد علمى بتونس فى ذلك الحين ،وكان أشبه بالازهر فى مصر٠

وخلال السنوات التالية تقدمت سنه وزاد "١" ______ وبدأ يعى الحياه حوله ولى "٢" ______ النضج عندما اقترب من سن العشرين احس بالصراع الفكرى الدائر بين المحافظين الجامدين "٣" ______ المجددين المتحررين وبين انصار الابقاء على "٤" ______ العربى أسيرا للقيود القديمه والذين يريدون "٥" ______ وفتح الآفاق العصرية أمامه ٠٠٠٠ واخذ الشاعر "٦" ______ المجددين المتحررين ، فقد كان شابا موهوبا "٧" ______ بالحياة الجديده احساسا قويا عنيفا يدرك "٨" ______ القوالب الجامده تضيق عن التعبير الصحيح "٩" ______ الجديده . وامتزج الشاعر والثائر فى "١٠" ______ أبى القاسم وخرجت الى الحياة تلك الشخصيه "١١" ______ التى تمثل قوة فكرية وطنية كبيره .

و"١٢" ______ القوى المجددين المتحررين تتجمع فى جمعية "١٣" ______ الصادقية وانضم أبو القاسم الى هذه الجمعية. "١٤" ______ الجمعية ألقى محاضرته الشهيرة عن "الخيال" "١٥" ______ عند العرب" ، وكانت طبيعة الامور تقتضى "١٦" ______ ينضم هذا الشاعر الموهوب ذو المزاج "١٧" ______ الذى يقدس فكرة الواجب ، ويدرك مسئوليته "١٨" ______ نحو الاخرين ٠٠٠٠٠ كان لابد لشاعر هذه طبيعته وهذا مزاجه أن ينضم الى "١٩" ______ جماعه ثائره تهدف الى تغيير ظروف "٢٠" ______ وظلمته ٠٠٠٠٠٠ ولو كان أبو القاسم الشابى "٢١" ______ شاعر رومانتى محبوس فى احزانه الخاصه "٢٢" ______ الذاتيه لابتعد عن الحياه ، ولم "٢٣" ______ فى التيار الثورى الموجود ، ولكنه كان "٢٤" ______ حزينا تمتد أحزانه الى واقع "٢٥" ______ هذا الواقع الذى يثير الحز

فى "٢٦"______الحماسه ويبعث بالكابه الى الشعور المرهف.... "٢٧"______يكن ابو القاسم من ذوى الامزجه السوداويه "٢٨"______تميل الى التشاؤم لمجرد التشاؤم ، بل "٢٩"______بقيمتها وقدسيتها ، والتى تدرك الجمال الموجود "٣١"______الطبيعه وتفهمه وتتذوقه ، ولكن الشابى كان "٣٢"______كل المعانى الجميله فى الحياه ضائعه "٣٣"______أمام القوى القبيحه المتخلفه .

ومن هنا "٣٤"______فنانا ثائرا : وكان فنانا حزينا معا . و"٣٥"______لم يعبر عن نفسه بالشعر فقط "٣٦"______كتب كتابات نثرية قليلة ولكنها شديدة "٣٧"______فى الدلالة على شخصيته وأفكاره . ومن "٣٨"______هذه الكتابات النثريه نجد انه كان "٣٩"______من "فكرة شامله" حول الفن والحياة ، "٤٠"______تكون نقطة ارتكاز ، وتستطيع أن تقدم "٤١"______لكل شئ فى الفن والحياة معا ، و "٤٣"______القرن العشرين الذين يشغلهم البحث عن "٤٤"______شامله ، هذا البحث الذى هو دائما "٤٥"______شأن الشعراء الكبار الذين لا يقنعون "٤٦"______يكون شعرهم مجرد انطباعات متفرقه عن "٤٧"______الحياة المختلفه ، بل هم يبحثون عن "٤٨"______يربط تلك المواقف بفلسفة واحده ، ووجهة "٤٩"______أساسية فى الحياة .

ولقد استطاع الشابى "٥٠"______يصل الى هذه الفكره الشامله .

APPENDIX G

ARABIC READING TEST
ENGLISH TRANSLATION

A Stranger in His Country

When Abu-Al Gasim Al-Shabi was about eleven years old, he left his village, Al-Shabiyya, a suburb of Tusan city, south of Tunis, for the city of Tunis, the capital, with the view of studying in Al-Zaituna Mosque. This was then the biggest institute for learning in Tunisia, similar to Al-Azahr in Egypt.

During the following years, as he grew older, his knowledge increased and he became aware of life around him. At the beginning of maturity, when he approached his twenties, he felt that intellectual conflict that was taking place between the backward conservatives and the progressive, free-minded radical; between those who were in favour of keeping the Arab community a hostage of traditional concepts and those who were demanding liberation and opening the contemporary horizons before it. The poet took the side of the liberal radicals. Being a gifted young man, he was able to feel the new trends in life very strongly and to realise that the static moulds were unable to express adequately these new trends.

The radical and the poet intermingled in the character of Abu Al-Gasim, and from that mixture, there emerged into life that unique personality which represents both an intellectual and an artistic power.

The forces of the progressive liberals began to gather into a 'Sadiqiyya Society' and Abu Al-Gasim joined them. During his membership in that Society, he delivered his famous lecture on the 'Poetic Imagination of the Arabs'. It was the nature of things that made it necessary for such a talented, liberal-minded poet to join the Society because he respects deeply the concept of duty and because he realises his personal responsibility towards others. It was inevitable for a poet of this nature and this tendency to join any revolutionary group aiming at changing the conditions of the community and its mentality.

Had Abu Al-Gasim been a mere romantic poet, engulfed in his own personal agonies and problems, he would have isolated himself from the current of life and would not have intermingled with the prevailing revolutionary current. But he was a sad poet, whose roots of sadness extend as far as the actual status of his nation: that status which causes sadness in the sensitive soul and the tender feeling. Abu Al-Gasim was not one of those who tend to see only the seamy side of life and who tend to be pessimistic for the sake of pessimism. On the contrary, his mood was optimistic, on the whole. He was one of those who love life, appreciate its value and sacredness and realise the existing beauty in nature, understand and enjoy it. Yet, in spite of this, Abu Al-Gasim had seen that all beautiful meanings in life were lost and defeated before the ugly, backward forces. For this reason, he was both a revolutionary and a sad artist. Abu Al-Gasim did not only express himself in poetry, but he wrote some little pieces in prose, and these were very clearly indicative of his character and ideas. From these prose writings, we find out that he was looking for an over-all concept about Art and Life. A concept that might function as a cornerstone and provide an explanation for everything concerning Art and Life together. Thus, Al-Shabi is one of the most outstanding Arab poets in the Twentieth Century, who are preoccupied with the search for an over-all concept. This search is always a characteristic of the great poets who cannot be satisfied that their poetry is merely varied impressions about the different features of life and who are searching for a central point to link all these views to both a single philosophy and a basic view towards life. And Abu Al-Gasim had successfully reached that over-all concept.

(Translation by Hashim Ahmed Mohamed Al-Tahir)

ARABIC SCORING SHEET

(١)
طه
عمره
عقله
نضجه
تفكيره
فكره
وجهه
معرفته
ادراكه
(٢)
بدايه
سن
مرحله
طور
أثناء
فتره
الزمن
سنوات
(٣)
صحن
النقد صحن
ضد
مع
والشعراء
و
والمحافظين
ثم

(٤)
الشعر
التراث
الفكر
الانسان
الادب
العالم
الوطن
النمط

(٥)
التقدم
انطلاقه
التغيير
تطويره
تقدمه
التجديد
التحديث
تطويره
(٦)
نهج
يساند
منهج
مبدأ
مذهب
طريق
برأى
يجمع

يشجع
بفكره
جانب
من
يؤيد
(٧)
أحس
يحس
ملىء
حاسا
له
مؤمنا
(٨)
ان
كل
(٩)
للعصر
للمعنى
من
القيم
للادب
والفكر
والتعبير
و
التحرر
والمفهوم
للشعر
(١٠)
شخصيه

نفسيه
نفس
شخص
(١١)
الفذه
القويه
العظيمه
الموهوبه
الناضجه
النادره
الفريده
الثائره
الجديده
(١٢)
كانت
أصبحت
بدأت
رأى
أخذت
(١٣)
باسم
تسمى
باسمها
الشعراء
الادب
المجددين
تحرير
الادباء
الفكر

(١٤)
فى
صدار
وأمام
(١٥)
الادبى
عهد
الشعرى
الفن
الواسع
واثره
والفكر
الخصب
(١٦)
ان
(١٧)
المرهف
الى
الفريد
الثورى
المتحرر
الصافى
الفكرى
الحاد
الوطنى
المتطلب
الثائر
الواعى
الغريب

(١٨)
الاديبه
وواجباته
الكبرى
كشاعر .
الكبيره
الفرد
التافه
الكامله
وواجبه
التاريخيه
الشخصيه
المقدسه
(١٩)
اى
كل
افراد
تنظيم
هولاء
احدى
جمعيه
هذه
صفوف
خضم
مجموعه
(٢٠)
المجتمع
حياته
العريض
الانسان
الادب
الشعر
فالشاعر
فكره
الوطن
الحياه
العصر
(٢١)
هذا
نفسه
هو
مثل
مجرد
فقط
يعتبر
ليس
كما يدعون
وأغراضه
أسير
فان
وهمومه
وآماله
والامه
وافكاره
الاحزان
ومشاكله
يمجد
وأموره
وحياته
(٢٣)
يظهر
ينضم
ينجرف
ينغمس
يشارك
يوثر
ينخرط
يسير
يدخل
يسكن
يجر
(٢٤)
شاعرا
دائما
فنانا
شابا
كئيبا
سهوما
يبدو
ثائرا
حقا
شخصا
(٢٥)
الحياه
حياته
امته
معاش
الم
المجتمع
مرير
(٢٦)
النفس
نفسه
النفوس
اصالته
(٢٧)
لم
ولم
(٢٨)
التى
ولم
(٢٩)
هو
على
كان
(٣٠)
الجميله
يشعر
يحس
كلما
الحياه
العارفه
مؤمن
المهمه
يقدرها
لقد
الحاسه
الحره
(٣١)
فى
على
(٣٢)
يشعر
يحس
يرى
يجد
يحس
يدرك
يظن
يعتبر
يفهم
(٣٣)
مهتذله
كلها
تماما
ضائعه
مفقوده
ضعيفه
من
سدى
مقدره
هباء
فى
دائما
(٣٤)
كان
ظهر
فانه
صار

اصبح
لكنه
والشابى
هو
ابو القاسم
ولذلك
وكذلك
انه
انى
وانما
بل
فقد
ولكنه
(٣٧)
التعبير
الطائر
المله
الاثر
الوضوح
عميقه
القوه
الوقع
اللهجه
(٣٨)
خلال
يلهبه
بعض
كل
قراءه
فكره
فكره
ضمن
داخل
(٣٩)
يتكلم

يعبر
يتحدث
يكتب
يبحث
يفكر

(٤٠)
تكاد
وكيف
كأن
قد
حتى
بحيث
فكرة
لكى
التى
ان
(٤١)
هذا
دعا
هذا
الكثير
مفعمه
تفسيرا
الجديد
شيئا
خدمه
(٤٢)
ولم
قد
أن
هكذا
لهذا
لذلك
هذا

هنا
(٤٣)
فى
(٤٤)
أفكار
الحياه
فكرة
قضايا
حياة
(٤٥)

من
شاغل
شأنه
وأبدا
(٤٦)
ولا
بأن
ان
الا
بل
لا
(٤٧)
أوجه
جوانب
مشكلات
احداث
شئون
مظاهر
صور
مواقف
ضروب
نواحى
أنماط
ظروف

(٤٨)
شىء
ما
رابط
كلما
الذى
فكره
واقع
جديد

(٤٩)
نظر
واحده
شامله
(٥٠)
ان

APPENDIX II

STUDY HABITS RESEARCH PROJECT

University of Khartoum

This is a Dictation Test. You are to write exactly what you hear on the tape.

First, listen as the instructor reads the selection at a normal speed. Then, proceed to write as the instructor begins to read the selection a second time, sentence by sentence. Correct your work when he reads each sentence a third time.

PLEASE WRITE CLEARLY.

THERE ARE MANY LESSONS WHICH A NEW STUDENT HAS TO LEARN WHEN HE COMES TO A LARGE UNIVERSITY. / AMONG OTHER THINGS HE MUST ADJUST HIMSELF TO THE NEW ENVIRONMENT. / HE MUST LEARN TO BE INDEPENDENT AND WISE IN MANAGING HIS AFFAIRS. / HE MUST LEARN TO GET ALONG WITH MANY PEOPLE. / ABOVE ALL HE SHOULD RECOGNISE WITH HUMILITY THAT THERE IS MUCH TO BE LEARNT (ED) / AND THAT HIS MAIN JOB IS TO GROW IN INTELLECT AND IN SPIRIT. / BUT HE MUSN'T LOSE SIGHT OF THE FACT THAT EDUCATION LIKE LIFE IS MOST WORTH WHILE WHEN IT IS ENJOYED. /

(/ = Pauses of 25 to 40 seconds.)

APPENDIX I
ARABIC DICTATION

جامعة الخرطوم

هذا اختبار فى الاملاء

المطلوب منك آن تكتب بالضبط ما تسمعه من الشريط

اولا : سنقرأ عليك القطعه بسرعه عادية عند القراءه الثانيه ابدأ فى الكتابه عندما يبدأ الاستاذ فى قراءة القطعه جمله بعد الاخرى عند القراءه الثالثه صحح ما كتبت عندما يقرأ الاستاذ القطعه للمره الاخيره .

يقول الخبراء العسكريون ان الصواريخ والمدافع المستخدمه فى الحرب الاهليه فى لبنان ذات قوة نيران تكفى اذا ما استمرت الحرب لتحويل بيروت الى انقاض. مثلما حدث لبرلين فى الحرب العالميه الثانيه .

يقول المسئولون الحكوميون ان تعمير المناطق التى دمرتها الحرب حتى الان يتطلب جهود عام كامل اذا تم التوصل الى اتفاق فى هذه اللحظه .

وتستخدم الاطراف المتحاربه احدث انواع الصواريخ والمدفعيه التى تنتجها الولايات المتحده والاتحاد السوفيتى.

وقال ضابط فلسطينى انه يجرى استخدام صواريخ ومدافع هاون ومدفعية مضاده للطائرات من صنع فرنسا وسويسرا وهولنده بافراط. واخر ما دخلت ساحة المعارك من اسلحه هى الصواريخ السوفيتيه المصنوعه من طراز "كاتيوشا" وطراز "جراد" ومدفعية الهاوتزر من عيار ١٠٠مم الامريكيه الصنع.

APPENDIX I

ARABIC DICTATION TEST
ENGLISH TRANSLATION

From Al-Ahram, June 1976

The military experts say that the missiles and cannons that are being used in the Civil War in Lebanon have a fire-power sufficient, if the war continues, to throw Beirut into ruins as happened to Berlin during the Second World War.

The Government officials say that the efforts of a whole year are needed to repair the regions destroyed by war, if ever an agreement is reached.

The fighting camps are using the latest types of missiles and cannons that are produced by the United States and the Soviet Union. A Palestinian officer announced that missiles, Houndguns and anti-aircraft artillary that are made in France, Switzerland and Finland are being used excessively. The latest weapons introduced into the battlefield are the Soviet-made Grad and Katyusha missiles, and the American-made 155mm Hound artillary.

(Translated by Hashim Ahmed Mohamed Al-Tahir)

APPENDIX J

INSTRUCTIONS FOR INTERVIEWERS

1. Greet the subject in a relaxed, informal way, as one student to another.

2. Ask if the subject wants to speak in Arabic or English (encourage Arabic).

3. Begin by telling the subject what the project is about and what the interview is for: we want to find out about problems students have and their ways of dealing with life at the University, so that next year we can make things easier and better for the new students.

4. Assure the subject that all information he gives us in the interview will be absolutely confidential - his name will never be used in connection with anything he tells us.

5. Tell him if there are questions he doesn't want to answer he needn't.

6. Write the subject's name and faculty on the Interview Schedule.

7. Write your own name on the Interview Schedule.

8. Ask each question as it is written on the Interview Schedule. If the subject doesn't understand something, then elaborate, re-word, explain as much as necessary - i.e., not too much.

9. In the same way, when you mark down the answer, be very certain you understand just what the subject means. This is very important - you and the subject must communicate as perfectly as possible. If there is any doubt on either side about what the question or answer is, keep trying until you get it right.

10. When the interview is finished:

    a) thank the subject for his help.
    b) give him his 50 piastres.
    c) give him a copy of the Diary Form (In English or Arabic, as he prefers). Explain to him how to fill it in every day in detail. Remind him that he gets £1 for the completed Diary. Explain where he is to return the completed Diary.

APPENDIX K

UNIVERSITY OF KHARTOUM
Student Affairs Section

Study Habits Research Project

INTERVIEW SCHEDULE

Subject's Name____________________

1. What Province in the Sudan do you come from? ____________________

2. What Higher Secondary School did you attend? ____________________

3. Did you attend an English-medium secondary school? YES NO

4. How old are you? __________

5. Do both your parents speak Arabic? YES NO

Do either of them speak English? YES NO

Can your father read Arabic ? YES NO

Can he read English? YES NO

Can your mother read Arabic? YES NO

Can she read English? YES NO

6. How many brothers and sisters do you have? (Write total number.) __________

7. What languages do you speak best? ____________________

What other languages do you speak? ____________________

____

____

8. How do you like living in Khartoum - do you enjoy living in a big city like Khartoum? VERY MUCH SO SO NOT AT ALL

9. Did you stay in Khartoum during the last holiday - between First and Second term? YES NO

If not, where did you go? HOME FRIEND RELATIVE ABROAD

OTHER ______________________

10. Do you enjoy University life - do you like it here? VERY MUCH SO SO NOT AT ALL

11. Are the hostels too noisy for you? YES NO

Do you get enough sleep at night? YES NO

12. Do you get ill very often? YES NO

If so, what sort of illness? ______________________

____

13. When you have personal problems, who do you go to for advice and help in the University? ______________________

14. Do you have any friends among the opposite sex? YES NO

15. Do you pray regularly every day? YES NO

16. Are you interested in National politics? YES NO

Do you have time to participate much? YES NO

Do you think students should take part in polities? YES NO

17. Are there enough social activities in the University for you - clubs, societies, sports, parties, picnics and the like? YES NO

What would you like more of? ______________________

____

18. Can you understand most of what your lecturers say in English? YES NO

If not, does this worry you? YES NO

If you don't understand something in a lecture, how do you find out? ASK LECTURER ASK OTHER STUDENTS I DON'T

19. Do any of your lecturers ever lecture in Arabic? YES NO

If so, which subject(s)? ____________________

20. Would you like to have your lectures in Arabic? YES NO

21. Do you discuss your work with your friends in Arabic?

22 Do you ever discuss your work in English with your friends? YES NO

22. Where do you usually study? HOSTEL MAIN LIBRARY DEPARTMENT STUDY ROOMS OR LIBRARY EMPTY CLASS-ROOM

OTHER____________________

Can you always find a place to study when you want it? YES NO

23. Do you usually study alone or with friends? ALONE WITH FRIENDS

24. Do you study in a way which is different from your friends? YES NO

25. Do you have enough study time? YES NO

26. Can you usually find the books teachers ask you to read? YES NO

27. Do you try to learn by heart everything you hear in lectures and read? YES NO

28. Do you try to take notes in lectures?	YES	NO	
Do you try to write everything or just the important things?	EVERYTHING	IMPORTANT	
Do you take notes in English or Arabic?	ENGLISH	ARABIC	
29. Do your teachers ever give you prepared notes?	YES	NO	
If so, which subjects?	______________________ ______________________		
30. Do you have to attend too many lectures?	YES	NO	
Do you get tired during a one-hour lecture - is it too long?	YES	NO	
Which do you prefer - lectures or tutorials/practicals?	LECTURES	TUTORIALS/ PARCTICALS	
31. Have you ever asked a question in a lecture?	YES	NO	
32. Are your subjects this year interesting?	YES	NO	
33. Whose fault is it when you do badly?	YOURS	TEACHER'S	SUBJECT TOO HARD
	OTHER______________________		
34. Do your lecturers know your name?	YES	NO	
35. Do you think your teachers are interested in you personally?	YES	NO	
If not, what are they interested in?	______________________ ______________________		
36. Do you have an Academic Advisor in your Faculty?	YES	NO	
37. Are you satisfied with the way you are being taught in the University?	YES	NO	

DO YOU WISH THIS INTERVIEW WAS FINISHED? IT IS. THANK YOU VERY MUCH.

جامعة الخرطوم
قسم شئون الطلبه
مشروع بحث طرق الدراسه

١ـ ما اسم المديرية التى جئت منها؟ انظر المفتاح

٢ـ ما اسم المدرسة الثانوية العليا التى درست فيها؟

٣ـ هل درست فى مدرسة ثانوية تدرس فيها المواد بالانجليزيه   نعم   لا

٤ـ كم عمرك

٥ـ هل يتحدث والدك ووالدتك العربيه ؟   نعم   لا

هل يستطيع والدك ان يقرأ بالعربيه ؟   نعم   لا

بالانجليزيه ؟   نعم   لا

٦ـ كم عدد اخوانك واخواتك؟ أكتب العدد   نعم   لا

٧ـ ما هى اللغه التى تتحدثها أحسن؟ أكتب اسمها

ما هى اللغات الاخرى التى تتحدثها؟ أكتبها

٨ـ هل انت مرتاح للسكن ـ المعيشه فى الخرطوم ـ هل تجد السكن

فى مدينة كبيره كالخرطوم ممتعا؟   جدا   نص نص   كلا

٩ـ هل مكثت بالخرطوم خلال الاجازه الماضيه ؟   نعم   لا

(اجازة الفتره الماضيه)

اذا كانت الاجابه لا فأين ذهبت؟   الى بلدك   الى صديق   الى قريب

الى خارج القطر   الى مكان لم تذكره

فى هذه القائمه

١٠ـ هل تستمتع بالحياه الجامعيه ؟   جدا   نص نص   كلا

١١ـ هل تجد الداخليه مزعجه جدا؟   جدا   نعم   لا

هل تتمكن من النوم لساعات كافيه اثناء الليل؟   نعم   لا

١٢ـ هل يعاودك المرض كثيرا؟   نعم   لا

أى نوع من المرض؟ أكتب الاجابه

١٣ـ اذا كانت لديك مشاكل شخصية فالى من تذهب لطلب النصح
والمساعده فى الجامعه ؟ أكتب الاجابه
١٤ـ هل لك اصدقاء من الجنس الاخر؟ نعم لا
١٥ـ هل تصلى بانتظام؟ نعم لا
١٦ـ هل انت مهتم بالسياسة القوميه نعم لا
هل تجد زمنا للمشاركة فى السياسه ؟ نعم لا
هل تعتقد ان الطلاب يجب ان يلعبوا دورا سياسيا ؟ نعم لا
١٧ـ هل هناك نشاطات اجتماعية كافية بالجامعه بالنسبه
لك نشاطات رياضيه ـحفلات ـرحلات وما شابه ؟ نعم لا
ما هو النشاط الذى ترغب فى زيادته ؟ اكتب الاجابه
١٨ـ هل تتمكن من فهم معظم ما يقوله المحاضرون بالانجليزيه ؟ نعم لا
اذا كانت الاجابه لا فهل يقلقك هذا ؟ نعم لا
اذا لم تتمكن من فهم نقطة ما فى دروسك فكيف
تعرف الاجابه عليها ؟ تسأل الاستاذ تسأل اصدقائك لا تسأل
١٩ـ هل يحاضر أى واحد من المحاضرين الذين
يدرسونك بالعربيه نعم لا
ما هى الدروس التى تتلقاها بالعربيه ؟
اكتب الاجابه ؟
٢٠ـ هل تحب ان تتلقى كل الدروس العربيه ؟ ؟ نعم لا
٢١ـ هل تناقش دروسك مع اصدقائك بالعربيه ؟ نعم لا
هل حاولت ان تناقش دروسك مع اصدقائك بالانجليزيه ؟ نعم لا
٢٢ـ اين تذاكر دروسك عادة حينما ترغب فى المذاكره ؟ فى الداخليه فى المكتبه
فى مكتبة الشعبه الرئيسيه
فى غرف
الشعبه

هل تجد دائما مكانا تذاكر فيه ؟ نعم لا

٢٣ــ هل تذاكر وحدك ام مع اصدقاء؟	وحدى	مع اصدقاء
٢٤ــ هل تذاكر بأسلوب مختلف عن بقية الطلاب؟	نعم	لا
٢٥ــ هل تجد وقتا كافيا للمذاكره ؟	نعم	لا
٢٦ــ هل يمكنك فى أغلب الاحيان ان تجد الكتب		
التى يطلب منك الاستاذ ان تقرأها ؟	نعم	لا
٢٧ــ هل تحاول ان تحفظ عن ظهر قلب الاشياء		
التى تقراها وتسمعها فى المحاضره ؟	نعم	لا
٢٨ــ هل تحاول ان تكتب مذكرات اثناء المحاضره ؟	نعم	لا
" " الاشياء المهمه فقط؟	نعم	لا
ام كل الاشياء؟	المهم فقط	كل شىء
٢٩ــ هل تكتب مذكراتك بالعربيه ام الانجليزيه ؟	الانجليزى	العربى
هل يعطيك اساتذتك مزكرات جاهزه ؟	نعم	لا
اذا كانت الاجابه نعم فما هى الدروس او		
المواد التى تعطى فيها هذه المذكرات؟		
اكتب الاجابه		
٣٠ــ هل تحضر حصص كثيره جدا ؟	نعم	لا
هل تتعب اثناء محاضره تستمر لمدة ساعه ؟	نعم	لا
هل تعتبر المحاضرات التى تستمر لمدة ساعه		
طويله جدا بالنسبة لك؟	نعم	لا
هل تفضل المحاضرات ام ال		
٣١ــ هل سبق لك ان طرحت اى سؤال اثناء أى محاضره ؟		
	نعم	لا
٣٢ــ هل تجد الدروس المقرره عليك هذا العام ممتعه ؟	نعم	لا

٣٣ـ على من تقع مسئولية الخطأ عندما يكون أداؤك فى اختبار ما غير مرضى؟ على الاستاذ صعوبة المادة
عليك أسباب اخرى

٣٤ـ هل تعتقد ان معظم اساتذتك يعرفون اسمك نعم لا

٣٥ـ هل تعتقد ان اساتذتك يهتمون بك؟ نعم لا
اذا كانت الاجابه بالنفى فبأى شئ
تعتقد انهم يهتمون؟ اكتب الاجابه

٣٦ـ هل لديك مشرف اكاديمى فى كليتك؟ نعم لا

٣٧ـ هل انت مرتاح للاسلوب الذى تلقى به
دروسك فى الجامعه؟ نعم لا

٣٨ـ هل ترغب فى ان تنتهى هذه المقابله؟ نعم لا

APPENDIX L

STUDY HABITS RESEARCH PROJECT

University of Khartoum

INSTRUCTIONS FOR STUDENT DIARY

This Diary is to be a record of the daily life of Preliminary-year students at the University of Khartoum. We want to know what students do during a normal day - what time they wake up, when they study, who they talk to, when they eat, when they play, when they go to bed at night. The information you give us in this Diary will be completely confidential - no one will ever know who gave us the information.

There are seven pages in this Diary - one page for each day of the week. Beginning tomorrow, you should fill in the form to tell about your activities during the day. Be as complete as possible. You can fill in the form at the end of the day, if you wish, but please do it every day, so you will not forget what you did, when and with whom. At the end of the seven days, you should turn in the finished Diary and you will receive £1. This is the end of your participation in the Project!

THE KIND OF INFORMATION WE WANT

1. Personal Activities - when you get up in the morning; when you say your prayers; when you eat breakfast, lunch, evening meal; people you visit or who visit you; what time you to to bed at night.
2. Lectures/Tutorials/Practicals - we want to know how much time you spend in class each day. Report only those classes you actually attend - if you are supposed to go but for some reason do not, please say so - remember, your teachers will not see your Diaries. Examinations are near and lectures are nearly finished, but please report any classes you attend.
3. Study Time - we are especially interested in the time you spend studying for examinations. Please report all times you study, even if only for a few minutes between lectures. Please tell: 1) what subject you studied; 2) what you did - read a book, wrote, read notes; 3) where you studied; 4) who studied with you; and 5) how long you studied.

INSTRUCTIONS FOR STUDENT DIARY (CONTINUED)

PLEASE FILL IN YOUR DIARY EACH DAY. After seven days, when your Diary is finished, please turn it in to:

Faculty of Arts: Sd. Mahdi, Secretary, English Department Office
Faculty of Law: Sd. Abdel-Karim, Registrar
Faculty of Economics: Mrs. Tadros, English Office, Top floor
Faculty of Science: Sd. Anwar, E.L.S.U. Office

When you hand in the finished Diary, you will receive your £1.

Thank you very much,

/s/ Dan

If NO, what are the reasons?

( ) I still have problems understanding spoken English
( ) I have to attend too many lectures
( ) I have trouble taking good lecture notes
( ) my subjects are not interesting
( ) I have trouble writing good English
( ) I don't have enough study time
( ) my teachers don't give me enough help
( ) I am unable to do enough reading
( ) I can't seem to understand what the teachers want
( ) my classes are too big
( ) I can't use the library very well
( ) I don't like to ask questions
( ) I don't feel at home here

بحث عادات الدرس والتحصيل
بجامعة الخرطوم

هذه المفكره اليوميه ستكون سجل للحياه اليوميه لطلبة السنه الاولى بجامعة الخرطوم

نحن نريد معرفة ما يقوم به الطلبة فى خلال اليوم العادى.... متى يصحون من النوم، ومتى يذاكرون، والى من يتحدثون، ومتى يأكلون، متى يلعبون، ومتى يذهبون الى النوم. المعلومات التى تدليها فى هذه المفكرة ستكون فى غاية من السريه. ولا يمكن لأحد معرفة من أدلى بهذه المعلومات.

هنالك سبع صفحات فى هذه المفكره. صفحه لكل يوم من ايام الاسبوع. ابتداء من يوم غد. يجب عليك ملء الجدول وضح فيه نشاطك خلال اليوم. حاول الدقه بقدر الامكان. يمكن ملء الجدول عند نهاية اليوم اذا رغبت، الرجاء ملء الجدول يوميا، حتى لا تنسى ما قمت به، متى؟ ومع من؟ وفى نهاية الايام السبع يجب عليك تسليم الجدول المملوء وستأخذ مبلغ واحد جنيه سودانى، والى هنا تأتى نهاية مشاركتك فى هذا المشروع.

المعلومات التى نريدها منك:

١- النشاط الشخصى

متى تصحو فى الصباح - متى تؤدى فريضة الصلاة، متى تأكل الفطور، الغدا والعشاء. الناس الذين تزورهم أو من هم زوارك - متى تذهب الى المنام فى الليل.

٢- المحاضره Practicals, Tutorials,

نحن نريد معرفة الوقت الذى تقضيه فى حجرة الدراسة كل يوم أذكر المحاضرات التى حضرتها شخصيا، أو كان لزاما عليك أن تذهب اليها ولكن لسبب ما لم تتمكن من حضورها. الرجاء ان تحدثنا عنها

حاول وتذكر ان أساتذتك سوف لا يرون مفكرتك اليوميه ، الامتحانات على الابواب ، والمحاضرات قاربت النهاية ولكن رجاؤنا تسجيل أى محاضرة حضرتها .

(٢) وقت المذاكرة

لنا رغبة خاصة فى الزمن الذى تقضيه فى المذاكرة ، الرجاء تسجيل كل الوقت الذى قضيته فى المذاكره حتى اذا كان لبعض دقائق بين المحاضرات

نرجو منك بأن تحددها ان (١) المادة التى ذاكرتها (٢) ما قمت به من : قراءة كتاب ، أو كتابة ، أو قراءة المذكرات (٣) أين ذاكرت (٤) ومن ذاكر معك (٥) كم من الوقت قضيته فى المذاكره .

الرجاء ملء مفكرتك يوميا

بعدد الايّام السبعه ، وعندما تنتهى مفكرتك ، الرجاء تسليمها الى :

السيد / مهدى ـ شعبة اللغه الانجليزيه ـ كلية الآداب
السيد / عبد الكريم ـ مسجل كلية القانون
السيد / أنور ـ وحدة خدمات اللغه الانجليزيه ـ كلية العلوم
السيده / فريدة تادرس ـ مكتب اللغه الانجليزيه بكلية الاقتصاد

وعندما تسلم المفكرة اليومية المطلوبه ، ستأخذ مبلغ واحد جنيه سودانى .

APPENDIX N

Name: Student One (Male)

Day: Wednesday

	5 – 7 a.m.	7 – 9 a.m.	9 – 11 a.m.	11 – 2 p.m.	2 – 5 p.m.	5 – 7 p.m.	7 – 9 p.m.	9 p.m. – Bed-time
PERSONAL ACTIVITIES	I have gone to sleep at one o'clock later in the night. I got up at about 6.30 a.m. I got myself ready for lectures.	I have taken my breakfast at 9.oo a.m. Then from 9.15 a.m. I started studying Sharia in my room til 10.00 a.m.		I have gone to the library at (11.00 a.m.) and went on reading a book on English legal system til 1.30 p.m. I have a chat with a friend for 15 minutes	I slept from 2 – 4 p.m. I got up.		I have my supper at 7.20 and I chatted with friends from another faculties from 7.20 til 8.00	Bedtime at 1.45 a.m.
LECTURES PRACTICALS TUTORIALS		7 – 8 a lecture on Sharia 8 – 9 a lecture on Criminal Law.	10 – 11 a lecture on Administrative Law					
STUDY TIME						I went to study from 4 – 7.15 on Constitutional law notes which were made by the Teacher.	I resumed my studying from 8.00 on Criminal Procedure which I have written from the lectures	I continued studying on from 8.00 til 1.30, then I went to bed.

APPENDIX M

Name: Student Two (Female)　　　Day: Thursday

	5 - 7 a.m.	7 - 9 a.m.	9 - 11 a.m.	11 - 2 p.m.	2 - 5 p.m.	5 - 7 p.m.	7 - 9 p.m.	9 p.m.-Bedtime
PERSONAL ACTIVITIES	I got up at 5 o'clock, had a bathe and I went to the U. at half past six.	I have been sitting on seats on the Main road til half past seven.			I have a breake between 4 o'clock til half past four.		I had my supper at half past seven and went back for studying.	I had a breake with my friend. When I returned after ½ an hour I found my friends searching for me and then had another breake.
LECTURES PRACTICALS TUTORIALS			I had an Archaeological lecture from ten to eleven.	I had a lecture at from twelve o'clock to one. It was an Arabic lecture.				
STUDY TIME		I went to the library from 7½ - 9 o'clock. I have been studying Arabic poetry during this time.			I have been studying in one of the rooms of political science rooms.	I have been studying in the library. I have been reading Archaeology. I didn't gain much of my reading because it is a bite difficult.		I returned to studying at 10 o'clock. But after that I couldn't read well and I fed up of reading and so went out at 10.30. I went to bed at 11.40.

APPENDIX M

Name: Student Three (Male)

Day: Tuesday

	5 - 7 a.m.	7 - 9 a.m.	9 - 11 a.m.	11 - 2 p.m.	2 - 5 p.m.	5 - 7 p.m.	7 - 9 p.m.	9 p.m.-Bedtime
PERSONAL ACTIVITIES	I have got up said my prayers	at 8 a.m. I have taken my breakfast		at 12 a.m. I came back to the hostel at 1½ a.m. I have taken my lunch	at 2 and ½ p.m. I was visited from 3 - 5 p.m. I have slept At 4½ I have said my prayer		at 7½ p.m. I have taken my evening meal, then I have said my prayer	at 12 went to bed
LECTURES PRACTICALS TUTORIALS			at 10 a.m. I have attended a lecture on politics	at 11 a.m. I have a tutorial class		I have a lecture on sociology		
STUDY TIME	From 6 - 7 I have solved mathematical problems	7 - 8 a.m. I continued solving those problems	9 - 10 I went to the main library and asked for reference which was not available at that time				at 8 p.m. I went to the main library	At 10 p.m. I came back from the library to the hostel, and joined my roommates in a very interesting discussion on economics problems

APPENDIX B

UNIVERSITY OF KHARTOUM
Student Affairs Section

Study Habits Research Project

QUESTIONNAIRE			**CIRCLE YOUR ANSWER**		
1.	How do you like living in Khartoum - do you enjoy living in a big city like Khartoum?	VERY MUCH	SO SO	NOT AT ALL	
2.	Do you enjoy University life - do you like it here?	VERY MUCH	SO SO	NOT AT ALL	
	GIVE YOUR REASONS ________________________________				
3.	Are the hostels too noisy for you?		YES	NO	
4.	When you have personal problems, who do you go to for advice and help in the University?	FRIENDS RELATIVE	HOSTEL WARDEN TEACHER	NO ONE	
5.	Do you have any friends among the opposite sex?		YES	NO	
6.	Can you understand most of what your lecturers say in English?		YES	NO	
	If you don't understand something in a lecture, how do you find out?	ASK LECTURER	ASK OTHER STUDENTS	REFERENCE BOOKS	I DON'T
7.	Would you like to have your lectures in Arabic?		YES	NO	
	GIVE YOUR REASONS ________________________________				
8.	Do you have enough study time?		YES	NO	

9. When you take lecture notes do you try to write everything or just the things? EVERYTHING IMPORTANT THINGS

10. Do you have to attend too many lectures? YES NO

Which do you prefer- lectures or tutorials/ practicals? LECTURES TUTORIALS/ PRACTICALS

11. Have you ever asked a question in a lecture? YES NO

12. Are your subjects this year interesting? YES NO

13. Are you satisfied with the way you are being taught in the university? YES NO

GIVE YOUR REASONS ____

____

14. Are you a better student now than you were in your preliminary year? YES NO

If YES, what are the reasons? Tick ( ) as many as are true:

( ) I can understand spoken English better this year
( ) I don't have so many lectures this year
( ) my lecture notes are better
( ) my subjects are more interesting
( ) I can write better English
( ) my friends help me more
( ) I have more study time
( ) my teachers give me more help
( ) I have been doing more reading
( ) I have a better idea about what the teachers want
( ) my classes are smaller
( ) I am able to use the library
( ) I am not so afraid to ask questions
( ) I feel more at home here

If NO, what are the reasons?

- ( ) I still have problems understanding spoken English
- ( ) I have to attend too many lectures
- ( ) I have trouble taking good lecture notes
- ( ) my subjects are not interesting
- ( ) I have trouble writing good English
- ( ) I don't have enough study time
- ( ) my teachers don't give me enough help
- ( ) I am unable to do enough reading
- ( ) I can't seem to understand what the teachers want
- ( ) my classes are too big
- ( ) I can't use the library very well
- ( ) I don't like to ask questions
- ( ) I don't feel at home here